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ABSTRACT

Because the assessment needs of young children and infants with handicaps are often quite different from those of the school-age populations with which child study teams have the most experience, this manual addresses issues relevant to the pre-kindergarten population. Chapter 1 provides an overview of general issues related to preschool assessment (assessment practices and planning, child influences on assessment, and test administration guidelines). Chapter 2 describes the use of observation techniques as an assessment tool (observations to check test data or assess functional skills, behavioral observation, and observing parent-child interactions). Chapter 3 focuses on parent and family involvement in the assessment process and on interviewing parents. Chapter 4 reviews measurement issues most often relevant in preschool assessment (definitions of terms, measurement concepts, and guidelines for test review). Chapter 5 discusses ways that assessment information can be conveyed to parents, agencies, and other professionals (staffing/feedback sessions and guidelines for written reports). Appendixes provide the following items: (1) regulations; (2) sample behavior observation forms; (3) a parent questionnaire (social and developmental history); (4) guidelines for clinical report preparation; and (5) notes on infant assessment. (SLD)

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ASSESSING YOUNG CHILDREN

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PREFACE

Child study teams across Minnesota have vast experience in gathering data and making special education placement and programming decisions. This experience generally has been amassed with school-age populations. Because the assessment needs of infants and young children with handicaps are often quite different from those of the traditional school-age population, this manual addresses issues relevant to the pre-kindergarten population.

The first chapter provides an overview of general issues related to preschool assessment. Chapter Two describes the use of observation techniques as an assessment tool, and Chapter Three focuses on parent/family involvement in the assessment process. This is followed by a review in Chapter Four of the measurement issues most often relevant to preschool assessment. Guidelines for test review are included. The document concludes in Chapter Five with a discussion of how assessment information can be conveyed to parents, agencies, and other professionals. Several useful Appendices are provided (regulations, observation forms, interview forms, report samples). The last Appendix provides a consolidated set of notes on the assessment of infants.

Note: Throughout this manual, "parent(s)" is used as a generic term to refer to the individual(s) legally responsible for a child. Thus, legal guardian should be inferred whenever "parent" is read.

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D - Guidelines For Preparation of Clinical Reports
E - Notes on Infant Assessment

CHAPTER ONE

GENERAL PRINCIPLES OF PRESCHOOL ASSESSMENT

Chapter One Topics

Purpose of early childhood assessment
Assessment practices and influencing factors
- o Examiner characteristics
- o Multiple procedures
- o Testing efficiency and sequence
- o Adapting standardized tests

Planning assessments
- o Legal and best practice
- o Selecting assessment battery
- o Who assesses
- o Where to assess
- o Nondiscriminatory assessment

Child influences on assessment
- o Age
- o Low incidence handicaps

Test administration guidelines
- o Learning a new test

CHAPTER ONE

GENERAL PRINCIPLES OF PRESCHOOL ASSESSMENT

The purpose of this chapter is to provide a general overview of some of the issues that arise in the assessment of young children and infants. In addition to noting the purpose of early childhood assessment, this chapter discusses influences on assessment, planning assessments, and test administration guidelines.

Purpose of Early Childhood Assessment

The role of Early Childhood Special Education is to support children who are handicapped to function within their families, their homes, and their early childhood programs in a manner that is as close as possible to how they would function typically were they not handicapped. This goal requires us to complete a comprehensive assessment that considers the whole child. It requires the completion of formal diagnostic evaluation as well as informal measurement providing documentation supporting the need for special education. Assessing the child within the context of his/her environment (i.e., home, with parents, siblings and/or extended family, child care setting, nursery school setting, Head Start, etc.) to determine what the family needs to continue that child in the "most normal" setting/environment is a critical component of the assessment.

Assessment is an interactive process based on the assumption that all children have competencies. The assessment process emphasizes social competencies, interactions with persons and environment, and growth and integration of skills over time. It recognizes the impact of a handicapping condition or delay in a child.

Criteria are one of the tools we use to decide whether, based on a comprehensive assessment, a child is handicapped. Criteria are not to be viewed as an end in themselves, but should be considered as another tool that teams use to determine eligibility, current levels of performance, and needs.

Assessment Practices for Use with Infants and Young Children

Infants and young children differ from school-aged children in many important ways, and these differences have a significant impact on assessment strategies. For example, because infants and young children do not yet have fully developed language skills, assessment cannot center on a question-and-answer format as it does with school-aged children. Nor have young children learned the school-related behaviors of complying with adult requests and sitting still for long

periods of time. Therefore, while test data can be useful, observation and evaluator judgment are much more critical to the assessment of younger children than they are to the assessment of older children. Evaluators must, in some cases, rely on behavioral reports from caregivers rather than on direct assessment, or even observation, of a young child's skills. In addition, young children often have difficulty dealing with strangers. As a result, assessment may take longer than it does with school-aged children, who are usually willing to go with the examiner and work on tasks, even though the testing environment may be an unfamiliar one. This section discusses examiner influences and assessment procedures that are unique to the assessment of infants and young children. Guidelines are provided for assessment procedures with children having low-incidence handicaps.

Examiner Characteristics

The assessment of infants and young children requires unique skills on the part of the administrator, as well as certain characteristics, such as infinite patience, gentleness, efficiency, and ingenuity. In order to develop skills in the assessment of infants and young children, the assessor must have training and practice with this age group. According to Rogers (1982), there are at least four characteristics shared by effective early childhood evaluators:

- **Experience with and enjoyment of infants and young children.**

  Rogers contends that skilled evaluators are comfortable enough in their handling of young children to make them feel safe and comfortable. This is accomplished through appropriate eye contact and conversational ease. The examiner needs to use language that is understandable to the young child; this language may include short sentences, simple vocabulary, and for infants, a slightly higher voice pitch. Baby talk, such as altering articulation, is **not** recommended.

- **Ability to fit one's behavior to that of the child.**

  Rogers recommends that the evaluator follow the infant's or young child's cues by allowing the child to initiate contact with the evaluator. Initially, the evaluator should function as an "unobtrusive stranger" and as an "offerer of interesting objects" (Ulrey, 1982) prior to assuming the role of test giver. The evaluator should watch for signs of distress or sleepiness and terminate testing when they are present.

- **Understanding of and respect for the child's personal space.**

  The examiner should initially interact with the child from a distance. This is especially true for children in the 7-18 month age range, for whom stranger anxiety is high. In addition, the examiner should not make physical contact with the child unless it is invited. While Rogers suggests that pats usually are acceptable, the examiner should avoid holding, hugging, or kissing the infant or young child.

- **Ability to establish rapport with parents.**

  If the child is to be comfortable with the examiner, the parent must also be comfortable. The astute evaluator will take cues about what to do with the child from the parent. Successful evaluation of infants and young children must meet the needs of both the parent and the child.

Multiple Assessment Procedures

The assessment of young children must be based on multiple assessment procedures that are conducted in multiple environments by members of a multidisciplinary team. While the use of assessment teams and multiple assessment devices is mandated by state rules and federal regulations for all decisions regarding handicaps, such practices are especially critical for preschool populations because young children are difficult to assess in traditional ways. The use and interpretation of formal standardized tests is sometimes inadequate. Observations and parent reports of the child's typical behavior become a very important part of the assessment process. In addition, since most preschool-aged children are not in a school environment for much of their day, assessment in non-school environments is critical.

Assessment, which should be multidisciplinary, may include the early childhood specialist, school psychologist, speech/language therapist, and parent(s), at a minimum. Health professionals, occupational therapists, social workers, and others should be included as needed. Assessments should be conducted in multiple environments (e.g., home, school) whenever possible.

The following elements should be considered as parts of a multiple assessment procedure:

- o Standardized norm-referenced tests
- o Criterion-referenced tests
- o Techniques for assessing functional/criterion skills
- o Systematic observation
- o Assessment of parent-child interaction or home environment
- o Medical history
- o Developmental history

Testing Efficiency and Sequence

Several characteristics of young children may make them look "untestable" when confronted with standardized tests. For example, the language skills of young children may not be adequate for the demands of the testing situation. In addition, until children have been in school for awhile, they do not necessarily follow the school-related rules of sitting quietly and complying with adult requests to perform. Neither have young children--who, according to Piaget, are quite egocentric--developed a concern for how others perceive them. Most young children simply will not perform tasks that are uninteresting to them. They have no basic interest in pleasing a strange adult. Despite these characteristics, efficient testing by a skilled assessor and the use of a reasonable testing sequence can result in a successful assessment session.

A fundamental rule in testing infants and young children is: **Be efficient**! Bayley (1969) suggests that the examiner must hurry, without hurrying the child. Testing will proceed much more efficiently if the examiner is ready to move from one task to the next as soon as the child indicates a desire to do so. The examiner **should know the test so well** that transitions between items are smooth and the child does not have a chance to get bored. With very young children, the examiner can reduce the effects of transitions by presenting a second item to the child prior to removing the first item (but **after** the child has responded to the first item). Because of the importance of efficient testing, examiners who are unfamiliar with the test or who administer the test only occasionally should not administer the test for placement purposes.

Ulrey (1982) cautions the examiner not to begin testing immediately. The following sequence of testing events is recommended:

Unobtrusive Stranger: During the first stage in the examination, the role of the examiner should be one of the "unobtrusive stranger." Ulrey recommends that this stage last about 10-20 minutes and be focused on a parent interview. During this interview, the examiner might want to have the parent interact with the child or have the parent present tasks to the child so that the parent-child interaction can be observed.

Offerer of Interesting Objects: During the second stage of the assessment, the examiner should become an "offerer of interesting objects." This stage allows for a transition to the actual testing. Ulrey suggests that when the child seems at ease with the examiner's presence, the examiner should become more active and introduce an interesting object or toy to the child. At this point, the examiner should explain to the parent what will happen next.

Active Examiner: Finally, the examiner is ready to become more active and introduce test items to the child. For children who are old enough to separate from the parent, testing should proceed according to standardized directions. When testing infants, the parent should remain with the child during the assessment.

Several guidelines for testing infants have been suggested by Ulrey (1982):

- Administer interesting objects and/or non-language items first.
- Repeat failed items at a later time if possible (i.e., the child should be retested).
- Introduce a new item before the old item is removed.
- Alternate easy items with more difficult items.
- Have the parent coax the child or present items as necessary.
- Do not push for a response if the child refuses to respond to an item or direction (children will let the examiner know when they are bored or do not know something; insisting on a response frustrates both child and examiner).
- Reassure the parent as a ceiling is reached.

These guidelines and several other notes related to infant assessment are included in Appendix E.

Adapting Standardized Tests

Relatively few standardized tests are available for use with infants and young children. In general, the younger the child, the fewer the options available. In addition, tests developed for use with infants and young children tend to have poor reliabilities as well as weak predictive validity. Given the limited number of technically adequate test instruments available and the developmental delays experienced by many children with handicaps, it is sometimes necessary to adapt tests in order to assess a given child's needs. When it is necessary to adapt tests or use tests inappropriate to the child's age, **results must be interpreted with extreme caution.** This caution should be reflected in subsequent written reports.

When to Adapt. There are two primary conditions under which adapting tests may be necessary: (a) when a child cannot achieve even a minimal score at the lower end of a test that is appropriate to the child's age, and (b) when a child's handicapping condition makes standard use of a scale impossible.

As an example of the first case, consider the following situation. A girl who is 2 years, 10 month (34 months) is given the Stanford-Binet, Fourth Edition (S-B IV), which has a lower age limit of 2 years, 0 months. The child is unable to respond correctly to any of the items on approximately half of the S-B IV subtests. There is not an alternative test that is appropriate for this age. The assessment team may decide that more information is needed to adequately assess the child's overall cognitive developmental level. The Bayley Scales of Infant Development might be administered in this case, even though the top age for which Bayley norms exist is 30 months. While a norm-referenced score **cannot** be reported in this case, it is possible with this instrument for the team to gather information about what the child can and cannot do in relation to developmental standards.

The second situation in which test adaptation might be required is illustrated in another case. A boy who is severely motorically impaired has extreme difficulty with both hand movements and speech. Since he has no understandable language, the team decides to administer the Leiter International Performance Scale to obtain an estimate of cognitive ability. While the Leiter does not require language, it does require motor movement sufficient to place small wooden blocks into a frame. The test might be administered without the frame and in a manner that allows the child to move the blocks so that their order corresponds to that expected. Many such adaptations will be necessary in the assessment of infants and young children with severe handicaps.

Interpretation of Adapted Tests: Caution! Once a test has been adapted, the norms for that test can no longer be used. Test norms are developed using a set of standard directions and procedures with children in specific age groups. The norms so developed may only be used if the standard procedures and age restrictions are followed. Why bother to adapt tests? Tests should be adapted when they can provide valuable information to the team. While standard scores are useful, the behavioral data gained via the test are also useful. It is this information, not the score, that is important to programming for the child.

Any time that a standardized test is adapted (that is, standard procedures are not followed or the child tested varies from the normative sample), details of the adaptation must be provided in the report of that test. Standard scores are **not** reported.

Planning An Assessment

Commonly accepted uses of assessment information are: screening, eligibility, placement, individual program planning, and overall program evaluation. This section on planning assessments focuses on assessment for eligibility, with reference to individual program planning and program evaluation. Assessment for eligibility, according to Salvia and Ysseldyke (1985) is the process of gathering information "to clarify and to verify the relationship of a pupil's abilities and skills to the criteria for eligibility" (p. 483). Assessment and evaluation clearly are integral to effective intervention (Bricker, 1986).

As noted before, however, several difficulties are encountered in the assessment of infants, toddlers and preschoolers, especially those with severe handicaps. First, many of the tests for this group of children have inadequate psychometric properties. Second, the complex problems of the children require that formal and informal appraisals be comprehensive in scope and settings.

Third, the conceptual biases among professionals regarding how children develop and the relative importance of developmental experiences are evident in the items on the assessment instruments. Fourth, assessments are conducted within the range of testing competencies of the professionals who are available and the resource limitations of individual school districts. Against this backdrop of issues, however, is the need for accurate and adequate assessment procedures.

Legal and Best Practice Aspects of the Assessment Process

Two aspects to the assessment process are: (a) the regulations that govern assessment for eligibility, and (b) the aspects of a well-planned assessment that reflect best practice. Both are relevant.

The legal provisions for early childhood special education assessment are the same as those that apply across the range of ages of children to be served. These regulations are found in Appendix A.

Experts agree in general on best practices that should be considered when planning for assessment (Bailey & Wolery, 1984; Bricker, 1986; Fewell, 1983). Representative best practices include:

- Assessment covers important developmental and behavioral domains.
- Parents are involved as significant partners in the assessment process.
- Assessment is multi-source and multi-measure.
- Assessment is ecologically valid.
- Child progress is evaluated on a regular basis.
- Assessment instruments and procedures are consistent with the purpose of the assessment (different purposes dictate different procedures).

These practices and others are reflected in decisions about the assessment instruments that will be used, who will assess, and where assessment will occur.

Selecting An Assessment Battery

An initial assessment should provide a picture of the historical, medical, social, and familial factors that may be influencing the child's development, learning, and behavior. At its simplest, an assessment battery is a collection of instruments and procedures selected for their utility in answering specific referral questions. The instruments and procedures in the battery should be those that most closely match the referral question(s), demonstrate technical adequacy, and are appropriate to the unique characteristics of the child and family. The tests should be ones that reflect individual differences and facilitate the ability of the team to make a determination of the child's status. It is recommended that subtest or domain scores not be used to determine eligibility since most do not have adequate psychometric properties.

Multiple Sources. The battery should also include information from other sources, such as hospital records, family members, and day care or other providers. A variety of approaches to gathering information, such as interviews, structured observations in several environments, and parent checklists, should be included as part of the battery.

At the eligibility stage, it is important to have a sufficient variety of sources of information and depth of information to make a decision. It is often difficult at this stage to be judicious in the selection of tests and procedures to be used. It is not unusual for teams to meld eligibility testing with programming testing in the selection process. Although this is an efficient use of time, it may result in overtesting a child at the eligibility phase of assessment.

Individualize. Early intervention teams need to individualize the assessment process based on information available or on the specific referral issue. Teams that fail to individualize usually administer the same tests or subtests to all children who are referred regardless of the reason for the referral. The information gained may not add significantly to the body of information needed to render a decision on eligibility or program planning. In individualized assessment, information is collected only in the areas needed. For example, if the child does not present any indicators of motor delays or deficiencies, then specialized motor assessments should not be conducted.

It is also important that the tests and procedures measure different concepts, constructs, and skills. For example, if the speech clinician and early childhood special educator both administer instruments that measure essentially the same aspects of development, the likely result is information duplication in one or two areas and deprivation in other important areas. Tests and procedures that provide the unique information should be selected. This is not to imply that overlap is unwanted - only that there should be a reason for this overlap.

Who Should Assess?

Traditionally, team composition for assessment and decision making has been designated as multidisciplinary, interdisciplinary, or transdisciplinary. Multidisciplinary teams contain members from multiple disciplines, but each member remains independent of the others. Most teams in early childhood special education are interdisciplinary. Interactions and communication occur among members of an interdisciplinary team so that an integrated plan for services, one representing all need areas, can be developed. The transdisciplinary team approach is gaining acceptance in early childhood services. In this approach, team members "release" their roles to each other and train each other on appropriate implementation (Lyon & Lyon, 1980).

Ideally, team composition should be determined by the needs of the child and family, and by the type of decision to be made. In reality, however, it may not be possible to reduce team membership until the meeting at which the Individualized Educational Plan (IEP) is written.

To some extent, team composition will reflect the service delivery model. Equality of membership will be difficult to achieve within teams if individual members are struggling for status and acceptance. Team members must be philosophically compatible, if they are to respect each other's contributions, and demonstrate a sense of commitment to quality services through shared decision making. These decisions include how to assess a child, where the assessments should be conducted, who is most qualified to conduct assessments, how to effectively involve parents as equals in the information gathering phase, and how data are to be reported.

Most teams typically include, at the minimum, the parent, an early childhood special education teacher, school psychologist, speech/language clinician, and administrator (or designee). Teams also may include occupational therapists, social workers (school or community), nurses (school or public health), physicians, and traditional early educators, depending upon the child's or family's needs, and the resources available. For infants, the team may include representatives of the medical community (e.g., hospital discharge team social worker). By carefully analyzing referral questions and who is most appropriate to address the questions, team size can be reduced to better address the needs of the child and family.

Where to Assess

Assessment instruments and procedures must match the child's age and the normal environments for the child at the time of referral. Families must be actively involved. For example, if a 3-year-old child is referred by a community day care provider for behavioral problems, then it is logical to assess the child in that setting, rather than conduct all social and behavioral observations in a diagnostic clinic or classroom for children already eligible for special services. Similarly, a five or six-year-old child should be observed in settings that are age appropriate for the child and the child's location prior to referral. To remove a child who has not been identified as handicapped from a less restrictive environment (such as a kindergarten classroom) in order to determine eligibility through placement in a segregated classroom with only handicapped peers, does not reflect best practice. It certainly does not provide a comprehensive view of the child. Possibilities for maintaining each child in more normalized environments should always be explored. This can be aided by carefully considering the assessment location.

Infants and toddlers also should be observed with active parent or caregiver involvement in those settings most familiar and appropriate for the child. Given the interagency structure of most infant/toddler programs, the public health nurse or social worker may be the appropriate team member to conduct home observations and to gather parent-infant interaction information.

Nondiscriminatory Assessment

Nondiscriminatory procedures in early childhood special education must go beyond testing in the primary language. They must include consideration of the child's cultural history, economic status, and family value systems. This implies that intervention also should be developed within the context of family and cultural values. Many resources on this topic exist. A most appropriate document related to considerations for culturally different children and families is by Eleanor Lynch (1986) entitled "Culturally Different Families." It is available through the University of Idaho Family Resource Network Series.

Child Factors That Influence Assessment

Individual child characteristics necessarily play an important role in determining the assessment plan and procedures, the examiner's approach, and the interpretation of results. There are, however, two general child factors that influence assessment: age (including prematurity) and the existence of a low-incidence handicap. This section addresses these two factors, and provides guidelines for assessing children with specific low-incidence handicaps.

Age

The assessment of infants and young children is based primarily on developmental criteria. That is, many of the assessment devices used with children under the age of five contain items designed to assess skills that are known to appear in a developmental sequence. Assessment, then, measures developmental progress through a series of known steps. These developmental standards for infants include early reflex activity, motor movement and sensory responses, social responsiveness, and precursors to language (i.e., prelinguistic communicative interactions). For young children, developmental assessment evaluates both gross and fine motor movements, language/communication, social interactions, and conceptual skills. It is therefore essential that those responsible for conducting assessments of infants and young children have a good basic understanding of developmental standards and sequences.

Premature Infants. Because the developmental course is critical to assessment, the assessment of premature infants must be based on their gestational age, **not** their chronological age. That is, calculations of the infant's age for purposes of using standardized tests should correct for prematurity, week-for-week, for at least the first 12 months after birth. For example, an infant who was born two months premature (at a gestation age of 32 weeks rather than the typical 40 weeks) will function similar to a two-month old when assessed four months after birth.

There is some disagreement in the literature about how long this correction factor is necessary. Hunt (1981) suggests that age correction for prematurity should be imposed up through 24 months; Martin (1982) argues that it does not hurt to make such corrections for the entire preschool period, or up to 60 months. Research by Siegel (1983) found that corrected age, up through 12 months, and uncorrected age after 12 months resulted in scores on infant scales that were more predictive of later test scores than the reverse procedures for those ages. In summary, most would agree that week-for-week correction for prematurity is necessary for the first 12 months after birth. As a compromise past 12 months, it is probably acceptable to correct for half of the prematurity from 13 through 24 months, and not to correct for prematurity past 24 months since most children who were premature have caught up developmentally by that time.

Low Incidence Handicaps

Testing children with low incidence handicaps such as physical disabilities and visual or hearing impairments, requires extra time, careful preparation, and knowledge of how to adapt testing procedures and materials. Few standardized instruments are normed on children with physical or sensory handicaps; derived scores from these measures thus must be interpreted with caution. Special considerations for assessment of children with three low incidence handicaps (physical disability, visual impairment, hearing impairment) are discussed here.

Physical Disability. Information on the nature and severity of the child's physical problems is needed before assessment begins. It is recommended that a physical and/or occupational therapist be consulted before assessment, and that one of these professionals also attend the assessment session in order to help modify procedures and materials, and to help maximize the child's ability to perform during assessment. The family also can provide valuable information about what the child does, how the child moves, and preferred materials and communication abilities.

It is recommended that the child be observed carefully before formal assessment to determine the following:

- Child's preferred position and the position that allows for the best volitional movement.
- Materials with which the child prefers to interact.
- Ways in which the child manipulates materials.
- Child's self-help skills.
- Type of assistance needed by child (people or equipment) to maintain or change positions and move in the environment.
- Ways in which the child communicates and the extent to which the child indicates choices and needs.

Be aware that in some cases, facial expressions, gestures, and eye movement may be the child's only mode of response. The child's parents may be very helpful in interpreting the child's responses and communicative attempts.

During test administration, the child should be positioned to allow maximum hand usage. Materials should be arranged to allow best hand use and to control for balance. Many aspects of the test may need to be adapted, including the following:

- Timing. More time to respond may have to be provided. Also, shorter and more frequent test sessions may need to be scheduled, due to endurance limitations.

- Materials. Larger items may need to be substituted for materials provided by the test.

- Responses Recorded. The intent to complete an item should be noted; this occurs when the child gives some indication that he/she knows what to do, but cannot do it because of physical limitations and/or the size of materials.

Always note any adaptations used and indicate behaviors when accepting intent. Full explanations must be reported when interpreting assessment information. Refer to Bettenburg (1985) for further information.

Hearing Impairment. Before assessing a child with a hearing impairment, information about the child's hearing acuity and speech discrimination, with and without hearing aids, should be obtained. Consultation with a teacher of the hearing impaired or an audiologist is recommended when planning the assessment. If a child uses sign language, an interpreter must be present at the assessment session. If the child is wearing aids, the examiner should make sure that they are working and set properly.

If the objective is to assess the child's nonverbal reasoning abilities, tests that are designed for this purpose should be selected. The Leiter International Performance Scale - Arthur Adaptation (Arthur, 1952) is one example of a test normed for this purpose. The Leiter does **not** require comprehension of verbal directions. Many other measures of nonverbal abilities, such as the Performance Scale on the Wechsler Preschool and Primary Scales of Intelligence, still require the understanding of verbal instructions to complete the tasks.

When verbal comprehension is checked or a verbal measure is used, the following are important considerations for assessment of a child who is hearing impaired.

- o A setting with minimal ambient noise should be used.
- o Speaking should be natural and at a normal rate - the examiner should not shout or exaggerate speech movements.
- o The child must be able to see the examiner's entire face (mustache, beard trimmed; lipstick for highlight; no gum or smoking).
- o Differences should be noted in the child's responses when looking at the examiner versus when not looking at the examiner (if the child completes an item correctly when not looking, it should be noted that the item was understood through audition only).
- o The examiner should insure that he/she has the child's visual attention most of the time (if the child is not looking when an item is first presented, it should be repeated with the child looking, and any difference in response noted).
- o A visual or motoric model should be provided when appropriate.
- o Signing should be used, if appropriate.
- o The child should be allowed to feel the examiner's throat vibrations when giving directions.
- o The child's responses should be reinforced through visual or motoric means (smiling, hand-clapping, touching).

Tests that have been normed on the hearing impaired population should be considered. Both the Test of Auditory Comprehension (Audiologic Services, 1981) and the Hiskey-Nebraska Test of Learning Aptitude (Hiskey, 1966), have been normed on children with hearing impairments.

Visual Impairment. Information about the child's visual acuity and discrimination should be obtained before the assessment is planned. When preparing to assess the young child, the examiner must consider aspects of both the child and the setting and/or physical environment. Some of these have been mentioned before, but are worth repeating.

Aspects of the child that must be considered include at least six variables:

- o Age: The age of the child determines what visual skills are expected and therefore appropriate to assess.

- o Visual Information: What specific diagnosis does the child have? Have any treatments been prescribed?

- o Cognitive Abilities: The child's cognitive skills give clues about the visual abilities the child may be demonstrating. Does the child have the abilities to understand and respond to specific visual tasks?

- o Physical Development (Gross and Fine Motor Skills): Can the child respond with appropriate movements? What is the best functional position for the child to use his/her vision?

- o Other Handicaps: Are there other sensory or developmental issues that need to be considered while assessing the child?

- o State of Alertness: Is the child taking any medication that may interfere with the assessment results? Is the child easily distracted or uninterested in the specific tasks?

Aspects of the setting that must be considered include at least five variables:

- o Lighting: Does the child's visual diagnosis give a clue as to what type of lighting may be most efficient? The examiner might try dim, bright, direct and indirect lighting.

- o Physical Space: Where is the testing being done? The examiner may want to consider functional abilities in a variety of settings that could include outdoors, home, classroom, and others.

- o Materials: The examiner should be careful to choose materials that focus upon the specific skills to be assessed. The cognitive skills of the child should be kept in mind when assessing.

- o Length of Assessment: Remember time! How long can the child attend to a task? What is the optimum time of day for the child to be seen?

- o Familiarity With The Child: Children need to feel comfortable in order to do well. The examiner may need to enlist the help of other staff or family members to make the child more comfortable.

These lists are not exhaustive. It may help also to include others in the planning stage and in the actual assessment. For example, a physical therapist may be able to ensure correct positioning of the child for accurate assessment.

Guidelines for Test Administration

Two basic rules guide test administration:

- o **No test should ever be given for decision-making purposes unless it has been validated for that purpose.**
- o **The person administering a test must be competent to do so.**

The focus of this section is the second point--test user considerations. (Test validity and adaptations of tests are discussed in other sections.)

Professional standards generally define competence to administer a test in terms of prior **general** training (i.e., training in a field such as psychology or early childhood special education), and in terms of training and/or practice **specific** to the given test.

The **Standards for Educational and Psychological Testing** (American Educational Research Association, American Psychological Association, & National Council on Measurement in Education, 1985) remind testing professionals that any individual who uses a test should have been "properly instructed in the appropriate test administration procedures" and should "understand the importance of adhering to the directions for administration that are provided by the test developer" (Standard 8.1, p. 52). In addition, test users should be "properly instructed in the appropriate methods for interpreting test scores" (Standard 8.2, p. 52).

Each individual who uses tests is responsible for monitoring his/her own skill and making sure that he/she has the "training and experience necessary to handle this responsibility. . . . Any special qualifications for test administration or interpretation noted in the manual should be met" (Standard 6.6, p. 42). The **Standards** further assert that when assessing individuals "whose special characteristics--ages, handicapping conditions, or linguistic, generational,

or cultural backgrounds--are outside the range of their academic training or supervised experience," test users "should seek consultation regarding test selection, necessary modifications of testing procedures, and score interpretation from a professional who has had relevant experience" (Standard 6.10, p. 43).

Procedures for Learning to Administer a New Test

Since test materials are changing continually, professionals must learn new tests periodically in order to remain current in their training. When test administrators have had general training in an area and wish to learn a new test that assesses skills similar to those they have previously been trained to assess, the following sequence of procedures should be followed.

- Read thoroughly the manual(s) covering administration and technical information.
- Read and carefully practice the instructions for administration of each part of the test.
- Administer the test, if possible, to a professional peer who is learning or has already learned the same test so that points of confusion/concern can be discussed.
- Practice administering the complete test until the administration of it is comfortable. (For some tests, this will require only 2-3 administrations; for others, 20-25 will be necessary.)
- Have another professional observe and critique the test administration if possible.
- Periodically reread the entire manual and all administration directions to avoid learning bad habits or incorrect procedures. (It is also a good idea to establish procedures for peer observation and review so that professionals can be sure that standard procedures are being followed.)

Key Points to Remember

- **The assessor of infants and young children must have training and practice with this age group.**
- **Assessment of young children requires multiple assessment procedures, in multiple environments, by members of a multidisciplinary team.**
- **Efficiency is fundamental to successful testing of infants and young children.**
- **Test results must be interpreted with extreme caution if the test has been adapted in any way.**
- **Procedures used in an assessment for eligiblity should be individualized on the basis of the referral issue.**
- **Professional standards must be followed.**

CHAPTER TWO

SYSTEMATIC OBSERVATION PROCEDURES

Chapter Two Topics

Steps in planning observations
Observations to check test data
Observation to assess functional skills
- o Low incidence handicaps
- o Language impaired

Behavioral observation
- o Alternative techniques
- o Establishing norms
- o Use in interventions

Observing parent-child interactions
- o Infants and toddlers
- o Preschoolers

CHAPTER TWO

SYSTEMATIC OBSERVATION PROCEDURES

Systematic observation of the skills and behaviors of infants and young children in natural environments becomes a critical part of assessment, particularly because of some of the difficulties encountered in using traditional tests (as described in Chapter One).

Definition

Systematic observation, as defined in the Minnesota Early Childhood Special Education criteria, requires that the observer have a plan for collecting observational data on the specific behaviors of a child in order to (a) confirm or dispute information obtained from objective assessment procedures; (b) gather information not addressed with more formal methods; and (c) assess the interaction of the child with his/her physical and human environment. Each of these uses of observation is described in this chapter.

Steps in Planning An Observation

Define Behavior. Prior to conducting an observation, the observer must determine the precise purpose of the observation and define the behavior(s) to be observed. There are two reasons for this. First, the purpose of the observation will, to a great extent, determine what type of observation techniques are most appropriate. Second, by specifying the focus of the observation and clearly defining the problem or question to be answered, the observer is forced to attend to a limited number of behaviors (Danielson, 1987).

Select Setting. The second step in planning for systematic observation is to determine the setting(s) in which the observation will take place. It is impossible to separate behavior from the setting in which it occurs; there is always a mutual relationship between a person and that person's environment (Boehm & Weinberg, 1987). If the goal of the observation is to observe peer interactions, then observation in a social setting is necessary. If, on the other hand, the goal is to observe the functional use of vision in a child with visual handicaps, the observation should take place both in a setting that is familiar to the child and in one that is unfamiliar to the child.

Select Method. After the behavior to be observed has been defined and the setting chosen, an observation method must be selected. The method determines the type of data to be gathered or the type of written record that will be kept. There are a number of ways to record information gathered during an

observation. The observer may keep a running narrative of the child's behavior, an anecdotal record might be made after an event has occurred, frequency counts of specified behaviors might be recorded in chart form, or a checklist or rating form might be employed. The type of record used should be consistent with the purpose of the observation, otherwise the observation will be irrelevant (Cartwright & Cartwright, 1984).

Like any good psychometric procedure, observational data must reflect sound measurement principles in order to be useful. That is, the data must be **objective, reliable,** and **valid.** Observation plans that are carefully developed are likely to increase the objectivity of the resulting observation. Still, the observer must be aware throughout an observation of the distortions that may result from subjective feelings and intuitive reactions to the situation being observed.

Reliability is a measure of consistency. In the case of observational data, it reflects the degree of consistency with which two observers rate one child's behavior, or the degree of consistency with which one observer would rate a child's behavior on two different occasions. The major threat to the reliability of observational data is the observer, in terms of the observer's loss of objectivity.

Validity refers to the degree to which an observation corresponds to the actual behavior it was intended to measure. An observation is designed to measure behavior and yield a record of what happens in a certain setting under specified conditions. The question the observer must ask is: Did the observational system sample the problem of concern? If not, then the data serve little purpose and are not valid (Danielson, 1987).

Observation to Verify or Disconfirm Test Data

While standardized tests may serve an important function in making placement decisions, they do not necessarily provide the best information about a child's skills or educational needs. Testing conditions involving young children are rarely ideal; therefore, it may be necessary to determine whether a child's standardized test performance accurately reflects that child's skills. Conclusions drawn from any assessment data should always be considered tentative and subject to revision as additional information comes to light. At best, the testing process can lead professionals to develop hypotheses about the child's functioning; observational data frequently are needed to verify those hypotheses. In serving this verification function, either informal observation and/or modifications of testing situations may be used.

The goal of informal observation is to see whether the child can perform a task that was not performed in a more structured or formal situation. For example, a series of motor tasks may need to be observed to decide whether the child who failed several motor items on a standardized test truly cannot perform the skills or just failed to perform them under the conditions of the test. Informal observation can take place either in the child's home or in another environment. The environment should, however, be one that is familiar to the child.

As discussed in Chapter One, it may on occasion be necessary to modify test instructions and then observe the child's skill level on the adapted test item(s). While such modifications invalidate a test for norm-referenced purposes, it is important to remember that informal observation can always add valuable information to the overall picture of a child's needs.

Observation to Assess Functional Skills

Assessing functional skills refers to the determination of skills that a child actually uses in specific settings. For example, an assessment of functional hearing skills in a child with a hearing impairment might focus on the extent to which the child responds to the doorbell or to a smoke alarm. Observation of functional skills frequently produces results different from those of standardized assessment techniques. For example, functional vision assessments often differ from physician assessments of vision.

Special considerations are needed when assessing the functional skills of children with low incidence conditions. Some of these special considerations for observing children in their daily environments and in the assessment setting are summarized here. Considerations for observing children with language impairments are presented first, since these often have implications for children with physical handicaps and children with hearing impairments.

Children with Language Impairments

Observation of the child with limited language should include how well the child communicates **nonverbally** and **verbally** in his/her daily environment as well as the communicative interactions provided by the family members. The setting in which the functional communicative behavior of the child is observed should be familiar to the child and one in which she/he has the opportunity to interact both as initiator and responder. Functional uses of language ideally need to be observed in a social context representative of a child's typical interactions (Bloom & Lahey, 1978).

Observation of the use of language must take into account the communicative function and relevance of the utterance. Children begin to communicate at very early ages, but the communicative function and relevance of utterances often change with age.

Vocal turn-taking occurs as early as two to three months of age. Later in infancy, protoimperatives (e.g., pointing to indicate wants) and protodeclaratives (e.g., showing objects to adults) emerge (Bates, Benigni, Bretherton, Camaioni, & Volterra, 1979). The examiner should note whether the young child can use words or gestures to communicate needs. Gestures could include pointing, reaching, showing, or leading the adult by hand to indicate desired objects or actions. If the child uses words, the observer should note how they are used, for what purposes, and whether they are easily understood by all family members. The observer also should note the child's frustration level and willingness to repeat utterances or gestures if not understood.

During the child's second year of life, various other functions of a child's communication emerge. The following list outlines the variety of communicative functions in the child's daily language that might be observed:

- Greets
- Requests information (question)
- Requests objects or activities
- Describes, asserts or comments on environment (including immediate ongoing activities, non-present objects, past events, and narrative use and cohesion)
- States ideas
- Protests or disagrees, defends rights
- Acknowledges
- Responds (to specific questions, to open-ended questions)

In addition to these, the observer can note the appropriateness of the quantity of speech and the conciseness of the speech act.

Language also is used socially to take turns in conversation. The child from 1 to 2 1/2 years of age provides utterances in dialogue that are related to the context of a previous utterance, but generally are not contingent upon that previous utterance. As children approach 3 years of age, they engage in conversation on a central topic; their utterances frequently are contingent on others' conversational input (Bloom, Rocessani, & Hood, 1976). Observation of the communication of a child with language disorders, thus, should include an analysis of the child's conversational turn-taking skills. The following list outlines components of a child's conversational turn-taking skills that might be observed.

- Initiates conversation (selects topic appropriate to conversation, or introduces new topic).
- Maintains conversational topic (observer should note the approximate number of turns taken on a central topic).
- Changes topic appropriately.
- Repairs conversation when a breakdown occurs; asks for revision when misunderstanding occurs.
- Interacts different in adult vs peer/sibling communicative/ conversational interactions.

Children with Physical Handicaps

When looking at the functional skills of young children with motor handicaps, a primary focus should be on what the environment requires of the child. It is also helpful to interview parents about their concerns or difficulties with the child during the day. Some things that the observer should look at or ask about include:

- Position that the child prefers.
- Materials with which the child interacts, and the nature of interactions.
- Degree of independence in feeding.
- Transitions of movement and positions.
- Means of communication (gestures, verbal) to have a need met or to signal a choice.

Each of the above should also be assessed in terms of the degree of stress produced in family and child and in terms of the amount of assistance required by the child.

Children with Hearing Impairments

Observations of children with hearing impairments in their daily environments should include attention to both their listening and communicative abilities and the quality of their listening and communicative environments. The focus here is on observation of the child's listening abilities and on the quality of the listening environment for the child. Observation of communicative abilities in children with hearing impairments is similar to observation of the child with language impairments (see earlier section on this topic).

The observer of the child's listening abilities should note how well the child uses residual hearing in the environment. This includes noting the child's gross sound awareness (e.g., response to doorbell, telephone, TV, radio, stereo, etc.) and localization (response to location of sound). The observer should also note the child's distance from any sound to which the child responded. The observer also should note the child's ability to follow simple directions about routine daily activities.

Observations of the listening environment will involve noting family members' use of communication with the child. The observer should include notations of language complexity, gestural or facial cues, and use of physical guidance. The general noise level in the home should be recorded, and opportunities for facilitating language and listening in the environment should also be noted (for example, does the family have a radio, stereo, doorbell, telephone, etc., and does the family alert the child to these sounds?).

Children with Visual Impairments

Numerous types of vision assessment procedures could be used for a functional vision assessment. Some of the primary aspects of functional vision assessment are described briefly here.

- o Pupillary Responses: Observe the condition. Measure changes to different stimuli.

- o Reaction to Light: Reaction to pen lights, flashlights, overhead lighting, etc. could be an indication of an awareness level beyond specific pupillary responses to the presentation of strong light sources. (CAUTION: Light sources may trigger seizure activity in some children!)

- o Muscle Imbalance: Do eyes appear physically straight? When do they appear to deviate and how? Try a chorinal reflection test.

- o Fixation Skills: Is the child really able to focus upon objects for a period of time? At what distance does this occur, and with what size objects?

- o Convergence: Do the child's eyes work together to follow the object as it moves toward the child's face?

- o Blink Reflexes: Does the blink reflex occur naturally as an object moves toward the child's face?

- o Eye Preference: Place a patch over one eye, then watch the visual and body reactions of the child. Does the child function any differently with either eye patched? Does the child appear to prefer using one eye more than another?

- o Visual Fields (Central, Peripheral, Preference): What parts of the visual field does the child appear to be relying on to gain visual information? Are there any cuts (missing areas) in the fields of the child?

- o Tracking: Is the child able to follow a moving light or toy with his/her eyes? At what distance and in which plane (horizontal, vertical, diagonal, or circle) does tracking occur?

- o Gaze Shifting: Is the child able to focus and refocus on objects within his/her visual field? At what distance and when looking at what size objects does gaze shifting occur?

- o Scanning: Is the child able to search in a line from one object to another to visually locate a designated "correct" object?

- o Reaching for a Visual Cue: Is the child able to visually locate a specific object, and coordinate movements to move toward and/or pick up the object?

- o Adaptations (Child's And Suggested): What compensation skills is the child currently using to adapt to the environment? (The observer should also note possible suggestions for adaptations that would aid the child and individuals working with the child.)

Two resources warrant exploration before deciding how to assess a child's functional vision skills. One by Langley (1980) is entitled Functional Vision Inventory for Multiple and Severely Handicapped. In addition to being an excellent resource about children with multiple handicaps, with both a screening and assessment tool, it contains activity guidelines and general information about visually impaired children. A second resource is the Minnesota Functional Vision Assessment, a tool now being standardized for children 3.5 to 9 years of age. Information about it can be obtained from Dr. Marie Knowlton, at the University of Minnesota.

Behavioral Observation*

Behavioral observation typically centers on identifying behaviors that interfere with the child's ability to cope successfully with the environment or on behaviors that are of significant concern to someone else in the child's environment, such as a the preschool teacher or parent. The goal of behavioral observation is to gather quantifiable data within a limited period of time using a coding system that allows for the behavior(s) of concern to be counted in some way. The purpose of using behavioral techniques is to discover how frequently--or at what rate--a given behavior occurs and under what conditions the rate of occurrence of that behavior changes. Given these parameters, it is imperative that behavioral methods be used only when specified behaviors have been identified for observation.

The behavior to be observed must first be defined in observable terms. Alessi and Kaye (1983) suggest that the definition contain an action verb such as "talking out," "teasing," "hitting others," or "sleeping." In order to obtain reliable data, the behavior of concern must be defined clearly enough to allow two independent observers to agree with each other (inter-observer reliability) and to allow a single observer to be consistent from one observation to another observation (intra-observer reliability). Precision in definition increases the consistency of the data gathered. The accuracy of the observational data is also improved when it is gathered across days and in more than one setting.

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* The section on "Behavioral Observation" is based on information in Chapter 5 of Danielson's (1987) manuscript on non-test sources of data.

Alternative Techniques

Alessi and Kaye (1983) identify five approaches to gathering behavioral data that result in measures of the **rate** at which a target behavior occurs: time sample recording, interval recording, event recording, duration recording, and latency recording. Each of these techniques requires that the observer use some kind of timing device (such as a stop watch) and a formatted paper-and-pencil recording form. Samples of recording forms for each of the five behavioral techniques discussed in this section are included in Appendix B. Observers may develop their own forms if preferred.

Time Sample Recording. Time sampling techniques require the observer to sample the behavior of the subject at predetermined times. Time sampling is most often used by a teacher who needs to collect data during the course of the school day in a manner that is both time efficient and unobtrusive to the task of teaching.

For example, a preschool teacher (Mr. Jones) might want to determine how often Mary **fails** to attend to class activities (the "target behavior") during the course of the morning session. To do so using a time sampling technique, he sets his watch alarm to beep at the hour and the half hour. At the beep sound, he observes Mary for 5 seconds. If she is not participating in the class activity or attending to the teacher (i.e., the target behavior **is** occurring) during any portion of that 5-second observation period, an "X" is recorded in the appropriate box of the observation grid. If Mary did not fail to participate or attend during the observation period (i.e., the target behavior did **not** occur), a "0" is recorded in the box. Only one X or 0 is placed in each box. Target behavior that occurs at times other than the predetermined observation interval is not recorded. Mr. Jones records the number of intervals during which the target behavior occurred.

Time sampling requires that the observation plan be determined prior to the observation. The length of the observation period, the frequency of observation periods, and the number of observation blocks can vary from one observation session to another. While not all instances of the target behavior that occur during the day will be recorded, if enough observation periods are included, the resulting rate should be fairly representative of the daily rate with which the target behavior occurs.

Interval Recording. In interval recording, observations are continuous over a longer unit of time (e.g., 20 minutes), which is divided into smaller units of time (usually 5-30 seconds). The recording grid has blocks marked off to represent each of the time intervals to be used. The observer keeps track of whether a target behavior (previously specified) occurs during each interval. Interval recording is not appropriate for use by a teacher or parent who must interact with the child during the observation period. The interval recording observation is usually conducted by someone whose sole role is as observer, i.e., a person who can focus on just watching the child and gathering data.

As an example, consider the case of a school psychologist (Ms. Smith) who is asked to observe the "hitting" behavior of Michael. She decides to observe Michael on the playground for a 10-minute period. The interval length is designated to be 30 seconds; therefore, the recording grid for this observation would have 20 boxes, each representing 30 seconds. During the first 90 seconds of the observation period, Michael and another child are observed playing together in the sand box. Consequently, the first three boxes of the grid contain "0"s to represent the non-occurrence of the target behavior. During

the fourth 30-second observation interval, Michael hits the other child three times. Since the target behavior occurred during that interval, an "X" is recorded. Only one "X" is recorded, not three. Ms. Smith records the number of intervals during which the target behavior occurred (i.e., she records the number of boxes containing an "X").

Event Recording. In event recording, the number of times that a target behavior occurs is recorded (in contrast to time sampling and interval recording). Event recording is appropriate as the method of observation for behaviors that occur either very seldom or very often. An example of an appropriate behavior might be temper tantrums.

Event recording requires the observer to note exactly when a behavior starts and stops so that each "event" can be recorded as a single incidence of the behavior. These data are transformed to rate data at the end of the observation period by dividing the number of times the behavior occurred by the total number of minutes (or hours) in the observation period. The resulting number reflects the rate at which the target behavior occurred per minute (or hour).

In the case of temper tantrum data, for example, the teacher might note that Sam has five temper tantrums in the course of a three-hour preschool class. Dividing the five tantrums by the three hours in the observation period indicates that Sam had 1.67 tantrums per hour. Another way to report the data would be to say that Sam had a tantrum approximately once every 36 minutes (180 minutes divided by five tantrums). Caution should be exercised in reporting these data however, since the rate data can suggest a regularity in behavior that may not exist (e.g., if child had five tantrums within the first hour of class, the rate would still be 1.67 tantrums per hour).

Duration Recording. Duration recording requires the observer to measure the **total amount** of time that the child engages in the target behavior. The observer records the time at which the target behavior episode begins and the time at which it ends. For both event and duration recordings, the target behavior must be defined so that the behavior that marks the start of an episode is clearly specified as are the conditions that are considered to mark the end of the episode.

In the example of Sam and his temper tantrums, the teacher could record the length of time each of the five tantrums endured (for example, 2'20", 5'45", 3'15", 8'05", and 1'50"). While these data could be averaged to tell us that Sam's tantrums last an average of 4 minutes, 30 seconds, the proper interpretation for behavioral **rate** data is to find the total amount of time that Sam was tantruming (21'15") and divide that by the total time spent observing (3 hours, or 180 minutes) to find that Sam spent almost 12% of his preschool class engaged in temper tantrums. If part of Sam's IEP called for decreasing his tantrum behavior, then both event and duration recording data would be useful as pre- and post-intervention data.

Latency Recording. It is often useful to know how much time elapses between a specified event (such as a parent request that a child come to dinner) and the defined behavioral response to that event (the child's arriving at the dinner table). The measure of time that elapses between these two events results in a latency recording. Recording begins at the **end** of the first event and continues until the **onset** of the second event. Latency recording is most useful with problems of compliance. The times recorded are averaged over the number of times the event pairings were observed.

A mother might record the coming-to-dinner behavior of her child every night for a week in order to establish a baseline. At the end of the week, she would add the recorded latencies and divide by seven. She would then know, on the average, how long it took her child to respond to her request to come to dinner. Such data might provide the basis for an intervention plan to shorten the average latency, thereby improving the child's compliance behavior.

Establishing Classroom Norms

Because the appropriateness of behavior varies with the age of the child and with the setting in which the behavior occurs, there are no existing behavioral norms that reflect what the observer should expect from a child of a given age in a given circumstance. One way to establish a standard of comparison is for the observer to simultaneously gather behavioral data on the target child and on one or more of the target child's peers.

It is usually preferable for the observer to use the class as a whole as the reference group. In this case, observation intervals alternate between the target child and another child (a "random peer") in the classroom throughout the observation period. The random peer is actually a different child each interval of the observation. The easiest way to select the random peer is to predetermine a selection method--such as going clockwise around each table in the room--so that each child in the classroom is selected for observation once before the rotation begins again. A more detailed explanation of the random peer procedure is provided in Appendix B.

Using Behavioral Observation in Interventions

The methods of behavioral observation described in this section are appropriate for gathering pre-intervention (or baseline) data and post-intervention data. Pre-intervention and post-intervention data then can be compared to determine whether an intervention was successful in changing the child's behavior.

In assessing behavior that needs to be changed, the observer should attend not only to the rate at which the behavior occurs but also to antecedent events and consequences of the problem behavior. Planning an appropriate intervention relies on reducing the kinds of behaviors and/or situations (stimuli) that seem to elicit the target behavior and the consequences of the behavior since these may serve to maintain the behavior of concern.

Observing Parent-Child Interactions

Parent-child interactions and their impact on both parent and child increasingly are being recognized in assessment and intervention programs for young children with handicaps. Since early social interactions appear to be the foundation for child-parent relationships, for later peer relations, and for language, social, and cognitive development, the observation of relevant dimensions of child-parent interactions seems warranted. Observing and assessing parent-child interactions also can provide a unique opportunity for the observer to describe the quality and quantity of the dynamics between parent and child or between parents and their child. This emphasis is consistent with viewing behaviors within the context of a family system that is influenced by the members and subsystems.

This section provides an overview of procedures and strategies for observing interactions, followed by specific information on observing infant-parent interactions. These same topics are addressed in abbreviated fashion for observation of the interactions of toddlers and preschool children.

General Considerations in Observations of Interactions

Bailey and Simeonsson (1988) state that instrument or procedure selection for family assessment should be guided by: (a) purpose of the assessment, (b) characteristics of the family, and (c) resources available for training, assessment and intervention. It seems reasonable to add to this list of considerations, (d) child's age.

To be most effective, observation of parent(s) and child should be conducted as part of overall family involvement in the assessment process (see Chapter Three). **The best instrument or procedure is the one that fits the needs of the family and the service program.** For example, if observation of parent-child interactions will be an ongoing part of an intervention program, the observation instrument selected should match as closely as possible the type or content of the intervention program that is provided.

Observing parent-child interactions in a way that is nondiscriminatory, respects family differences, and provides useful information for parents and other team members requires that the parameters and purposes of the observations be planned with care. The parameters that appear in the literature as important considerations include (a) the situational context of the interaction, (b) behaviors of interest, (c) types of coding systems, and (d) definitions of the behaviors to be observed.

According to Bailey and Simeonsson (1988), at least five questions must be asked in planning the situational context of the observation:

- **What is the activity of most interest for observation?**

  Interactions occur during the normal routines of the day (e.g., play, bath), and these will change with the child's age and changes in the family system. If parents indicate that play is a good time for interaction but that because of the child's motoric impairments bathing is demanding and non-rewarding for both parties, bathtime may be an important time to observe. Ideally, it would be best to observe the interactions under both identified pleasurable and less pleasurable situations.

- **What setting will be used?**

  Parents and children may be observed in a variety of settings from natural ones (e.g., home) to more contrived ones (e.g., diagnostic clinics). Preference should be given to those settings that are expected to yield samples of typical behaviors between the parents and child.

- **What level of structure should be used?**

  Whether an observation session is to be relatively unstructured or tightly structured, or somewhere in between, must be planned in advance. Observing a "free play" session is an example of a relatively unstructured observation. Videotaping the parent teaching a task or helping the child to solve a problem is an example of a more tightly structured observation.

- **What materials will be used?**

  Many professionals prefer to use standard age appropriate materials and equipment across children. The observer must be sensitive to the potential problems of introducing new toys or materials to a child, however, either in the home or in a clinic setting. Parent input should be requested and followed.

- **What is the appropriate length of observation?**

  The length of an observation will vary depending upon the location, time of day, behaviors observed, and age of the child. However, the observation session should last long enough to obtain a representative qualitative and quantitative sample of interactions. This usually can be accomplished within 10 to 20 minute time periods. If the observation is occurring in conjuction with the use of another assessment instrument, the length of the observation will be determined by the time needed to administer that instrument.

Another question that should be addressed prior to the observation is "Who are the persons to be observed?" Ideally, the observation should focus on all central caregivers (e.g., mother, father, grandmother, babysitter) since these observations will provide additional information for family involvement. As the number of persons observed increases so does the complexity of the logistics in scheduling, and determining what behaviors to observe.

Considerations in Observing Parent-Infant/Toddler Interactions

The literature suggests that parents of infants with more severe handicaps interact less often with their infants than parents of normal infants (Rosenberg, Robinson, & Beckman, 1986), have less fun with their infants (Field, 1980), and are more directive then parents of normally-developing babies (Kelly, 1982). The literature also strongly suggests that parents of young children who are normally developing, at risk, or handicapped can make, and can be taught to make, constructive adaptations to facilitate interactions (Mahoney, Finger, & Powell, 1985). It is important, therefore, that the dimensions of interactions be identified so that parents and interventionists can build on existing strengths as part of an ongoing intervention.

Selecting appropriate procedures for identifying dimensions of existing interactions is difficult. Major types of observation systems described by Rosenberg et al. (1986) are useful to consider:

- **Molar systems of rating scales**: These systems help observers look at broad categories of behavior such as directiveness. They give the least specific information about behaviors but describe the flow of the interaction. The Maternal Behavior Rating Scale (Mahoney, Powell, & Finger, 1986) is an example of this type of system.

- **Molecular systems of rating scales**: These systems help observers record specific behavioral events. Behaviors are more carefully defined than in molar systems, and as a result, there is higher inter-rater reliability using this approach. An example of this type of system is the Social Interaction Assessment Intervention (SIAI) (McCollum & Slayton, 1985).

- **Checklists and rating scales**: Checklists such as the HOME (Caldwell & Bradley, 1984) and Parent Behavior Progression (PBP) (see Bromwich, 1981) are enjoying a resurgence of interest due to Public Law 99-457. The HOME is designed to measure qualitative properties about the child's domestic environment and the PBP is designed to measure the quality of parenting provided to infants. These instruments have been used widely in research projects. Caution must be exercised in using these checklists, however, because they have been criticized as possibly lacking in cultural sensitivity.

Common themes of behaviors or classes of behaviors can be identified for both infants and caregivers. These include the following infant behaviors:

State	Activity level	Proximity
Temperament	Attention Span	Reciprocity
Reactability	Consolability	

They also include the following caregiver behaviors:

Sensitivity	Physical contact
Responsivity	Reciprocity

Most parent-infant observation systems provide little information about training and materials. And, many of the commercially available instruments lack sufficient information on validity and reliability. As a consequence, observational data must be viewed in the context of a comprehensive process of assessment. The information presented here about observations of infants and their caregivers is summarized along with several other notes in Appendix E.

Considerations in Observing Interactions of Preschool Children

The observation of interactions for children over three years of age may include both child-caregiver interactions (e.g., parent(s), day-care provider) and child-peer interactions in play settings and problem solving situations. The focus of this section is to provide an overview on assessment of social interactions of young children.

Although it is possible to observe the frequency with which a child demonstrates specific social behaviors, professionals generally are also concerned with the affective quality of specific behaviors. Most often, professionals are interested in observing social behaviors in an interactional setting. Because social interactions are reciprocal, it is important to remember that the other player(s) in the setting may affect the outcomes of the observation and conclusions about the child. For example, if a four-year-old child who has been referred for eligibility testing is observed in structured play and free play settings in a classroom with children identified as handicapped, these play partners will influence the perceived social/play competence of the child being tested. Therefore, the use of multiple measures is recommended. These multiple measures can include:

Direct Observations in Social Contexts
Teacher Ratings
Parent Ratings
Peer Sociometric Ratings (if the child is old enough)
Criterion-Referenced Tests
Norm-Referenced Tests

Each of these systems has strengths and weaknesses in terms of identifying social and/or play skills, drawing conclusions, and planning programs. None of them should be used in isolation, nor as a single opportunity method, nor without parental involvement. The choice of instruments/approaches should be determined by the purpose for gathering the information, the particular interaction skills that are of importance, and the skills of the observer(s). Professionals must be skilled in systematic observation procedures (see beginning of this chapter) and be competent in administering and interpreting specific checklists, criterion-referenced instruments, and norm-referenced instruments before using them.

Key Points to Remember

- o For infants and young children, systematic observation of skills and behavior in natural environments is a critical part of assessment.
- o Observational data must be objective and reflect sound measurement principles to be useful.
- o Primary reasons for observation are to check results of standardized tests and to assess functional skills.
- o Behavioral observation focuses on specific behavior using quantifiable procedures.
- o Observing parent/child interactions is consistent with viewing behaviors within the context of a family system that is influenced by members and subsystems.

CHAPTER THREE

PARENT/FAMILY INVOLVEMENT IN THE ASSESSMENT PROCESS

Chapter Three Topics

Involving families in assessment
- o Advantages
- o Current approaches
- o Methods
- o Strategies to increase participation
- o Translation to goals

Interviewing parents
- o Effective interviewing
- o Using interviewing as part of assessment
- o Focused interviews

CHAPTER THREE

PARENT/FAMILY INVOLVEMENT IN THE ASSESSMENT PROCESS

Historically, family involvement has been viewed as a critical component of early intervention efforts. Traditionally, however, the role of parents and families in the assessment phase has been in response to interviews or questionnaires about the child and the family. After the assessment phase has been completed, parents most often have been the recipients of information about their child's developmental and behavioral status. Studies indicate that parents generally have been passive in IEP meetings and have demonstrated a low level of involvement in IEP development (Brinkerhoff & Vincent, 1986; Turnbull & Turnbull, 1986). It is only recently that programs for young children with handicaps are being designed within the context of the family (Lynch, Widley, & DiCola, 1986). Moreover, Public Law 99-457 requires the active involvement of families both as planners of services for their children and as recipients of services. The legislation articulates the need for professionals to address family needs in relationship to young children with handicaps.

The report that accompanied Public Law 99-457 stated that the IEPs of preschool children should, when appropriate and requested by parents, include instruction for parents. The new Part H requires that early intervention teams prepare a written Individualized Family Service Plan (IFSP). The IFSP should include a statement of family strengths and needs related to facilitating the child's development and a statement of major outcomes to be attained by the child and the family. In the case of interagency services, a case manager must be designated for implementing the plan and coordinating with other agencies. The plan may also include family training and counseling services, and must be individualized for each family. Involvement of families in assessment is, therefore, a critical step in this process. Public Law 99-457 also reinforces the intent of Public Law 94-142 to involve parents as active planners and decision makers for their children with handicaps.

The focus of this section is on the active role that parents and other family members (e.g., siblings, grandparents) can assume in the assessment process as providers of information about the child and about aspects of the family that may be relevant in program planning.

Involving Families in Assessment

Advantages of Involving Parents in Assessment

It is somewhat odd that the literature describes a parent as the primary teacher of the child, as a major source of information about the child and as the person who best knows the child, when parents themselves believe that they are rarely asked to actively participate in providing diagnostic information

about their child. One of the major advantages of involving parents from the beginning of the process is that in this way professionals can facilitate a sense of trust in families. Involvement may also enhance family-team collaboration in planning and implementation if parents perceive that everyone is working toward a mutually agreed upon set of goals.

Parents can provide information about their child's performance at home, in the community, at places of worship, at the store, etc. Many of these environments are ones in which professionals are not likely to observe the child. Yet the child's performance in these settings probably will influence (a) a parent's perceptions of the child's strengths and weaknesses, and (b) programming for generalization of skills. Parents also can provide information related to the child's performance in naturally occurring routines, and in interactions with peers and siblings. For children with severe and multiple handicaps, parents can identify functional adaptations and environmental adaptations that they know facilitate their child's performance in activities. This type of information-gathering signals to parents that professionals recognize that parents and children function for most of their day and week outside the environments and activities of the intervention program. It also credits the parents for their skills and their knowledge of their child.

Assessment and intervention with young children do not take place in isolation. Family variables must be considered since they may influence interventions and outcomes. Bailey and Simeonsson (1988) outline five reasons for involving the family as well as the child in assessment:

- To meet a legislative/legal mandate
- To understand the child as part of a system
- To identify family needs for services
- To identify family strengths that promote family adaptation
- To expand overall evaluation efforts

Current Approaches

The current approaches to family involvement in assessment and intervention are derivatives of a family systems perspective. This approach views the family as a social system with unique characteristics, resources, and needs. A basic tenet of family systems theory is that the individual family members are so interrelated that any experience affecting one member will affect all members. This perspective would suggest that an understanding of family strengths and weaknesses, resources, interactions and functions would be a solid basis for designing intervention programs for children and family members.

There seems to be general consensus in the literature (Bailey & Simeonsson, 1987; Bricker, 1986; Bristol, 1987; Simeonsson, 1986) that assessments involving families should address the following domains:

- Family needs
- Family strengths
- Parent-child interactions
- Family environments
- Child needs and characteristics that may affect family functioning
- Critical or stressful events

Bristol and others at the Frank Porter Graham Center at the University of North Carolina have produced a compilation of instruments and studies examining the above family aspects.

Assessments of the family domains have not been widely incorporated into early intervention programs even though there are many checklists, rating scales, and observation procedures currently available. It is important that the instruments selected to incorporate aspects of family functioning into assessment: (a) match the goals of the intervention program, (b) be intervention-focused, rather than research instruments, (c) not intrude into aspects of family functioning and relationships that are beyond the scope of intervention, and (d) be nondiscriminatory.

Additionally, examiner training guidelines for child assessments apply as well for family involvement assessment. Unfortunately, many of the family-focused instruments do not have established training procedures.

Methods for Family Involvement in Assessment

Instruments that include family variables range from standardized tests to informal measures (Simeonsson, 1986). Prior to initiating family involvement in assessments, it is important that the team (including the parents) specify the type of information to be collected, why it is to be collected, and how the information is to be gathered. Methods typically used to involve families in assessment include interviews, questionnaires/surveys, and observations.

Interviews: These can be helpful and useful when the program staff has extended contact with family members. They are also an effective method for gathering information from parents who are non-readers or uncomfortable in responding to forms.

Interviews may be open-ended or structured. Open-ended interviews provide a great deal of information regarding a family but require time to sort through the information. If program personnel wish to have a general sense of how a family interacts with its members or resources commonly used by family members, then a general, open-ended interview format can be used. An example of this is naturalistic inquiry as described by Odom and Shuster (1986). Structured interviews typically use a forced-choice format. An advantage to this approach is that the interviewer can start with questions about the child and gradually proceed to questions relating to the parent's affect regarding the child's role and impact in the family structure. Care must be taken to be non-judgmental in the questions posed and responses given to the parent.

Bristol (1987) also suggests telephone interviews as a strategy for reaching a large number of families. Telephone interviews, however, may increase the potential for losing rapport with family members. On the other hand, phone interviews may be less stressful for some responders.

Questionnaires or Surveys: These are of the greatest use to a team when it is interested in comparing responses to a standard set of questions or to a normative group. They also reduce the possibility of interviewer bias. If the team is interested in fine-grained assessment of a specific aspect or aspects of family systems, then it is recommended that a formal instrument be selected.

However, many of the questionnaires and surveys available lack desired psychometric properties, and are research oriented. For example, if family stress is an important variable to an intervention staff, an instrument such as The Revised Questionnaire on Resources and Stress (see Crnic, Friedrich, & Greenberg, 1983). However, the technical adequacy data, interpretation data

and examiner's manual are not currently available for general use. Given the state of the art, this type of problem is quite common with family assessment instruments. Thorough research should be done before any instrument is adopted for use in a program.

Observation: As stated in other portions of this manual (see Chapter Two especially), observation is an excellent procedure when determination of patterns of behavior are important (e.g., parent/child interactions in feeding). Molar or molecular systems may be selected depending upon the type of information desired. Bristol (1987) cautions professionals to be mindful of their biases and assumptions since these can influence their observations.

A checklist developed by the team also can be used by the parents to record information about the child's performance in naturally occurring situations. The Family Inventory of Child Development in Non-School Environments is a helpful instrument for parents and professionals to use in looking at the child's performance in non-school environments and routines. This is an instrument that can be used each year and gives the parent a record from which to speak about the child's strengths and areas of needs.

Strategies to Increase Parental Participation

The goal of assessment is the compilation of a sufficient amount and variety of information with which to make an informed decision regarding a child's eligibility for services, the nature of those services, and parent/family involvement. From the referral stage onward, it is important that parents have a clear sense of what is happening with their child, why it is happening, and their options as parents. Most parents of medically involved children and infants with handicaps have already experienced the bureaucracy of the health care system before reaching the educational system and may be overwhelmed by another system, preoccupied with financial concerns, ready for a break, etc. Literature suggests that parents may not process the information regarding rights and responsibilities as it is given to them. (If professionals do not have a complete understanding of the law and its applications, it may be unreasonable to assume that parents will process all of the information in the first meeting.) Some programs suggest that parents bring a friend or relative to meetings to (a) balance the numbers of professionals and family members, (b) ask questions that parents may be reluctant to ask, (c) act as a family support, and (d) act as a safeguard for families.

Another way to facilitate the parents' perceptions that they are part of the process is to provide them with a file folder in which they can keep papers relevant to the IEP/IFSP. This is certainly one of the signs that professionals use to indicate their status. It also signals to the parents that this information is important and should be treated in this manner.

Parents should be actively involved in determining what aspects of their child's development and behavior will be assessed, how and where it will be done and who will do it. The team facilitator should describe the tests, procedures and options in a manner that gives the parent options from which to choose. Parents and family members can be encouraged to observe, and to be interviewed. However, parents have the right to decline this level of assessment without prejudice. The facilitator must strike a balance of requesting only information that is necessary, rather than pressuring parents to agree to observations, interviews, or other procedures that may not be needed. As Turnbull and Turnbull (1986) note, parents of handicapped children

are asked to provide information that is never requested of other parents, and they are expected to have their home available for visits. Whenever possible, the team should select the least intrusive measures that provide enough information to address the referral question(s). One strategy that has proven effective for a number of programs is the use of a daily routine form for the family and child. Sample daily routine forms and interview forms are found in Appendix C.

The use of "arena assessment," or variations thereof, is gaining acceptance as a way of gathering information about the child with the parent and all professionals present at the same time. In this type of assessment, the facilitator, often with parent assistance, leads the child through predetermined developmental tasks. Parent and professionals surround the facilitator and child to observe performance, suggest other tasks, and share information. Programs that employ this strategy report that parents appear comfortable throughout the process. They are treated as persons who have valuable knowledge about their child. This is evidenced in the discussion process in which the parent verifies, clarifies, and extends the initial observations of the team. Parents may be asked to compare the child's performance on specific fine motor tasks to the child's performance at home. Open-ended questions such as "How does Gina use her spoon at home?" may be used to open the discussion. If the parent seems unable to answer or does not understand the question, the facilitator can ask a more defined question, such as "Does she pick her spoon up without help?" The outcomes of the discussion lead to the determination of a structure for the assessment process.

Translating Assessment Information Into Goals

Much of the information obtained through parent and family participation in the assessment process can be used eventually to help formulate specific goals for a child, if it is determined that the child is eligible for special education. However, at the stage of eligibility testing, family involvement in the assessment process is not focused on the collection of information that will translates into goals for the child. It must be clear to parents or caregivers that different kinds of decisions are made during the assessment process, and that tests or procedures used for one purpose may not be appropriate for another purpose. Most typically, eligibility testing does not provide information that translate into goals and objectives, program plans, or specific intervention strategies.

Interviewing Parents*

Parent interviews play a very important role in the assessment of infants and young children. Since young children are not yet in school, parents are often the primary source of information about their child's skills and behaviors. The parent interview serves two functions: (a) it is an important source of assessment data, and (b) it provides the parent with an opportunity to express the fears, doubts, and anxieties associated with having a child who is handicapped. Therefore, the interviewer needs to be both task directed and supportive of the parents. This section focuses first on the way in which the interview should be conducted to maintain a warm and empathetic, yet professional, relationship between parent and interviewer. Following this is a discussion of the specific content of the parent interview.

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* The section on "Interviewing Parents" is based on information in Chapter 7 of Danielson's (1987) manuscript on non-test sources of data.

Effective Interviewing

For an interview to be successful, the interviewer must establish and maintain rapport with the parent. Rapport can be defined as the feeling of harmony or accord that exists between the interviewer and the person being interviewed (the respondent). If rapport is not maintained, the interviewer cannot be sure that the information obtained is either accurate or complete. There are several ways in which rapport can be enhanced and the validity of the responses can be improved during the interview. Characteristics of interviews with these qualities are discussed here.

- **The respondent feels comfortable with the interviewer.** The interviewer who is skilled at making the parent feel comfortable during the interview is likely to get information that is more relevant and accurate than that obtained by an interviewer who makes the parent nervous and/or anxious. During the initial stages of the interview, the parent should either be allowed to discuss whatever topics he/she wishes, or should be asked a series of non-threatening questions. It may be helpful to start the interview by asking the parent to mention any concerns about the child. Another alternative is to begin the interview with questions that are biographical in nature, such as names and ages of siblings, parent occupations, etc.

- **The respondent understands the purpose for the interview.**

  The primary goal of the interview is the collection of data relevant to the child's potential handicap. Prior to beginning the interview, the parent should be aware of this goal. The parent should be told what kinds of questions will be asked and why.

- **The interviewer assumes responsibility for setting the tone and pace of the interview.**

  Setting the tone and pace of the interview means that the interviewer asks questions, listens actively to the parent, and directs attention to the purpose of the interview should the parent digress. The interviewer maintains control of the session. At the same time, the interviewer must be careful not to intimidate or cut the parent off unnecessarily. Although responsible for maintaining control, the interviewer should be flexible about asking questions, and should be responsive to the content and emotion of the parent's answers. In short, the interview should be conducted in a professional and business-like way, while the interviewer also maintains rapport with the parent.

- **The interviewer maintains a professional relationship with the parent.**

  The interviewer must be warm and accepting without being overly friendly. The parent expects the interviewer, as a professional, to be open and honest, to give information when it is requested, to be nonjudgmental, and to protect the parent's right to privacy. When rapport is good between the parent and the interviewer, the parent may share much more personally sensitive information than would otherwise occur. The interviewer must always be aware that much of the information gained during an interview is given by the parent with the assumption that sensitive information will not be transmitted to a third party. Thus, it is critical that the interviewer discuss with the parent any information from the interview

that will need to be shared with others. The interviewer should explain why it is necessary to share information and ask the parent's permission prior to including such information in a written or verbal report. Information that is not critical to the child's program should not be shared.

- **The interviewer is on guard for threats to the validity of data gathered through the interview.**

  The single best way to assure valid information is to elicit a satisfactory level of participation from the parent. Motivation to participate in the interview will develop if the parent expects to receive a benefit from participation (such as having the child receive needed services), and if the interaction with the interviewer is a positive experience. There are several threats to validity in gathering parent interview data. Parents usually become defensive if they perceive that the interviewer is questioning their parental skills. In addition, parents' verbal reports may distort the behaviors being assessed. Such distortions may or may not be deliberate. It is also possible that questions may be misinterpreted or misunderstood. The passage of time may also lead to distortions of what is remembered; reports about events that happened several years prior to the interview may be less than accurate. There is some evidence to suggest that mothers recall specific facts (such as the length of the child at birth) best and are least accurate in recalling their own early anxieties about their children (Medinnus, 1976).

- **Interview questions are phrased in a way that does not threaten the parent.**

  Research by Sears, Maccoby, and Levin (1957) suggests that distortions in responses can be minimized through the careful phrasing of questions. For example, rather than asking a mother whether she ever plays with the child, the interviewer might ask whether she ever finds time to play with her child just for the fun of it. Another tactic is to ask questions that allow for a wide range of behaviors to be viewed as socially acceptable, for example: "Some people feel it's very important for a child to learn not to fight with other children, and other people feel there are times when a child has to learn to fight. How do you feel about this?" (Sears et al., 1957, p. 21). Validity of interview data can also be threatened when leading questions are asked (i.e., the questions suggest the responses). Questions that can be answered with only "yes" or "no" limit the information gained in the interview, thereby reducing validity.

- **The interviewer should constantly monitor her/his own behavior.**

  In addition to paying attention to the feelings of the parent in order to maintain rapport, the interviewer must also attend to his/her own nonverbal cues and feelings about the parent, and the way in which questions are being asked and feedback is provided. This self-monitoring must occur in order to assure that interviewer behavior does not influence parent responses.

Using Interviewing as Part of an Assessment

Interview questions should address several areas: (a) developmental milestones, (b) health history, (c) functional skills/habits, (d) social-emotional behaviors, and (e) interactions between parent and/or family and child. This information can be gathered using either a structured format or an unstructured format. **Structured interviews** use a list of predetermined questions that may require the respondent to rate the child on a list of behavioral statements (as in a behavioral checklist or rating scale) or to respond to a series of open-ended questions. **Unstructured interviews** allow the interviewer to ask questions as they seem appropriate within a given context or to follow up on an issue raised during the interview. Even with a structured format, however, the astute interviewer will deviate from the list of questions when necessary to clarify points or pursue a line of questioning that may be relevant to the child's problem. A sample interview form (adapted from Ulrey & Rogers, 1982) is provided in Appendix C.

Focused Interviews

An alternative interview strategy that is beginning to receive attention in the special education literature is the focused interview (Winton & Bailey, in press). The structure of this type of interview may be useful to professionals who are uncomfortable in more open-ended interactions with parents. The focused interview has five phases:

Preliminary Phase
Introductory Phase
Inventory Phase
Summary and Priority Phase
Closure

In the **Preliminary Phase** the interviewer collates and condenses all previous assessment information and information from other agencies, from the family, etc. This information is used to identify tentatively the needs of the child and family that should be considered of high priority. Any discrepancies between information sources can be resolved during the focused interview. During the preliminary phase, the interviewer should write a planning guide that includes: (a) general topics to be covered, (b) related goal areas to be explored, (c) identified family resources related to the goal areas, and (d) relevant family data on perceptions of goal areas. The outcome of the interview should be tentative collaborative goals for each of the areas of importance.

In the **Introductory Phase** the interviewer confirms the logistics and details of the interview with the family member(s). This should include a restatement of the purpose of the interview, who should be there, and how much time it might take.

The **Inventory Phase** is the opening portion of the interview. It is during this time that the interviewer sets the tone for the meeting. It is suggested that the opening portion be somewhat open-ended and non-threatening for the participants. This is a time to allow the family to talk. The interviewer should listen actively, without interrupting or talking about irrelevant information. After a predetermined time period, the interviewer should direct the discussion to the topics to be covered.

In the **Summary and Priority Phase** the interviewer summarizes what the family has said and helps the family translate the information into meaningful goals. This phase is started when the interviewer is certain that all topics have been identified, and that enough time has been allowed for additional but related issues to be discussed.

During **Closure** the interviewer restates, in general terms, what was accomplished and suggests future meetings. At this point, parents may become concerned about personal information they may have shared. A telephone call to the family member on the following day can do much in establishing a sense of trust.

The focused interview is predicated upon positive parent-professional communication. It also is a promising strategy for including parents' priorities and goals in program development.

Key Points to Remember

- **Involvement of families in assessment is critical, particularly in preparation of Individualized Family Service Plans (IFSP).**
- **Understanding family strengths and weaknesses, resources, interactions, and functions provides a good basis for designing interventions.**
- **Interviews must be conducted in ways that maintain a warm and empathetic, yet professional, relationship between parent and interviewer.**

CHAPTER FOUR

TESTING ISSUES

Chapter Four Topics

Definitions of terms
Measurement concepts
- o Validity (criterion-related, content, construct)
- o Reliability (test-retest, alternate-form)
- o Standardization
- o Norms and derived scores

Guidelines for test review

CHAPTER FOUR

TESTING ISSUES

This chapter discusses measurement characteristics of testing pertinent to the assessment of infants and young children. It includes concepts that are critical to the appropriate use of assessment procedures.

Basic Definitions

Testing and **assessment** are educational terms that often are used interchangeably. However, they are not synonymous. They should be distinguished by their characteristics and purposes. **Assessment** is a **process** that integrates information from many sources. The assessment purpose will influence the selection of procedures. Assessment is used to:

- Determine the existence and extent of a developmental or educational disability and the need for a program placement (eligibility)
- Determine IEP objectives and strategies, and curriculum activities (programs)
- Monitor a child's progress and program effectiveness (evaluation)

Testing is a necessary, but not sufficient, component of assessment in which **numbers are applied to performance.** Testing has a critical role in the assessment and placement process, yielding data that can be used to help determine the existence and extent of a disability. It is imperative that tests possess desirable psychometric characteristics if appropriate decisions are to be made about the existence of a handicapping condition. Tests are developed to **sample** behaviors or skills in a particular domain; they do not include all the skills that might need to be addressed in intervention.

Furthermore, errors on individual test items only suggest possible deficits since they may be due to other causes, such as the test taker's momentary lapse in attention or lack of mastery of the skill (McCauley & Swisher, 1984b). However, numerous **assessment procedures** can be used to develop intervention programs. Among the alternatives available for planning interventions are systematic observations, criterion-referenced tests, and detailed descriptions of skills made with reference to stages of normal development (as is accomplished through language sample analysis).

Measurement Concepts

Among the variables that must be considered when selecting assessment procedures are the assessment questions, the characteristics of the child, and the domain of development under consideration. These issues are addressed in the first chapter of this manual. The focus here is on variables related to technical adequacy, including validity, reliability, standardization, test norms, and derived scores. Recommended guidelines for use in reviewing tests also are discussed.

Validity

Validity refers to the legitimacy of inferences made about test scores. Tests by themselves are neither valid nor invalid. It is the **interpretation** of the results and the degree to which test scores actually assess the construct being measured that should be evaluated in determining test validity (Cunningham, 1986). Test authors generally report three types of evidence to establish test validity: criterion-related validity, content validity, and construct validity.

Criterion-related validity is examined by collecting evidence that scores on a particular test are related to scores on an established test of the same behavior. The established test is called the criterion measure. Two kinds of criterion-related validity are considered important: concurrent and predictive validity.

Concurrent validity is evaluated by examining how closely a child's performance on a newly developed test compares with performance on a criterion instrument administered at about the same time as the new test. For example, if a new test of cognitive abilities were developed, it might be given to a large number of children along with an established test such as the Stanford-Binet. If a reasonably high correlation with the Stanford-Binet is achieved, the new test is said to have concurrent validity.

The predictive validity of an instrument reflects how well an individual's test score can predict future performance on a criterion measure. For example, a test author may wish to determine whether a new test of speech sound stimulability (the ability to produce particular speech sounds correctly when given a model or instructions) can predict the results on another, validated test of articulation given several months later with no intervening therapy. If use of the stimulability test improves predictions about which children acquire speech sounds without therapy, the new test is said to have predictive validity.

Content validity is evaluated by assessing how well the content of the test samples the behavior domain(s) it purports to measure. The appropriateness of the test items, the completeness of the item sample, and the way the target behaviors are measured are all considered when determining content validity. As an example, a test of motor skills might be examined to determine whether (a) it includes items that are appropriate for the age range for which the test was developed and normed; (b) the sample of items is complete, e.g., includes a variety of motor skills such as strength, bilateral coordination, manual dexterity, and visual-motor skills; and (c) the child's abilities in other areas, such as language comprehension or visual-perception, significantly influence the child's performance on the test items.

Construct validity refers to the degree to which a test measures the theoretical construct it is intended to measure (Anastasi, 1976). For example, intelligence may be defined as a set of capacities that enable an individual to learn. If a test designer uses this definition of intelligence, but includes only items that measure understanding of vocabulary, the test may be judged to have poor construct validity. Despite the importance of construct validity, its evaluation is difficult and somewhat subjective. For that reason, standards for construct validity are not included in the "Guidelines for Test Review" at the end of this chapter.

Reliability

One of the most important characteristics of a test, and one that limits its validity is its reliability. When a test is unreliable, it fails to measure consistently what it is intended to measure and, therefore, it is a less valid measurement instrument (Salvia & Ysseldyke, 1985). A high level of reliability is necessary when test scores are used to make educational decisions for a student. Bettenburg (1985) defines and discusses the concept of reliability as follows: "When the results of a particular test for an individual child are consistent on repeated assessments, the test is reliable. Where scores fluctuate significantly, the test lacks reliability" (p. 7). Three types of reliability coefficients often are reported by test authors: test-retest, alternate form, and internal consistency.

Test-retest reliability reflects the stability of test scores over time. This correlation coefficient generally is obtained by testing a sample of subjects, testing a second time, after a specified interval, and then correlating the scores of the two administrations. **Alternate-form reliability** is obtained by testing students with an instrument that has two forms and then correlating the scores from the two forms. There are several ways to compute **internal consistency reliability**, but the most common is split-half reliability. It is similar to the calculation of alternate-form reliability except that the alternate forms of the test are created **after** administration of the test (by dividing the test into two parts), and the scores obtained from administration of each half of the test are correlated to determine whether the items are, in fact, measuring the same behaviors.

Bracken (1987b) suggests that subtest and total test floors and item gradients are of special importance in preschool assessment because floor effects and item gradients affect the reliability of results and, therefore, the diagnostic decisions that are made. As Bracken (1987a) explains it, the "item gradient refers to how rapidly standard scores increase as a function of a child's success or failure on a single test item. The larger the resulting standard score difference in relation to a change in a single raw score, the less sensitive the test is to small differences in the child's abilities" (p. 322). In a test with a steep item gradient, there are only a few items for each standard score deviation, such as when two raw score items correspond to each standard score deviation. Thus, if a raw score of 5 is equivalent to a standard score that falls 1.5 standard deviations below the mean and a raw score of 4 is equivalent to a score that falls 2 standard deviations below the mean, the gradient is so steep that the child has few opportunities to demonstrate ability and, thus, limited information is available for making diagnostic decisions.

Floor effects are related to the difficulty level of items at the lower end of the test. The test floor is too high if the test lacks a sufficient number of easy items to properly discriminate between children who fall at the lower end of the range. This concept is illustrated in tests that require establishment of a basal score. When a child passes only one or two (or no) items on a subscale or scale, it is difficult to interpret that score if the test does not have sufficient items at the lower end to adequately measure the skill level. This is especially problematic when raw scores of zero or one result in standard scores that are within one or two standard deviations below the mean.

Standardization

Standardization of tests is defined and discussed by Bettenburg (1985):

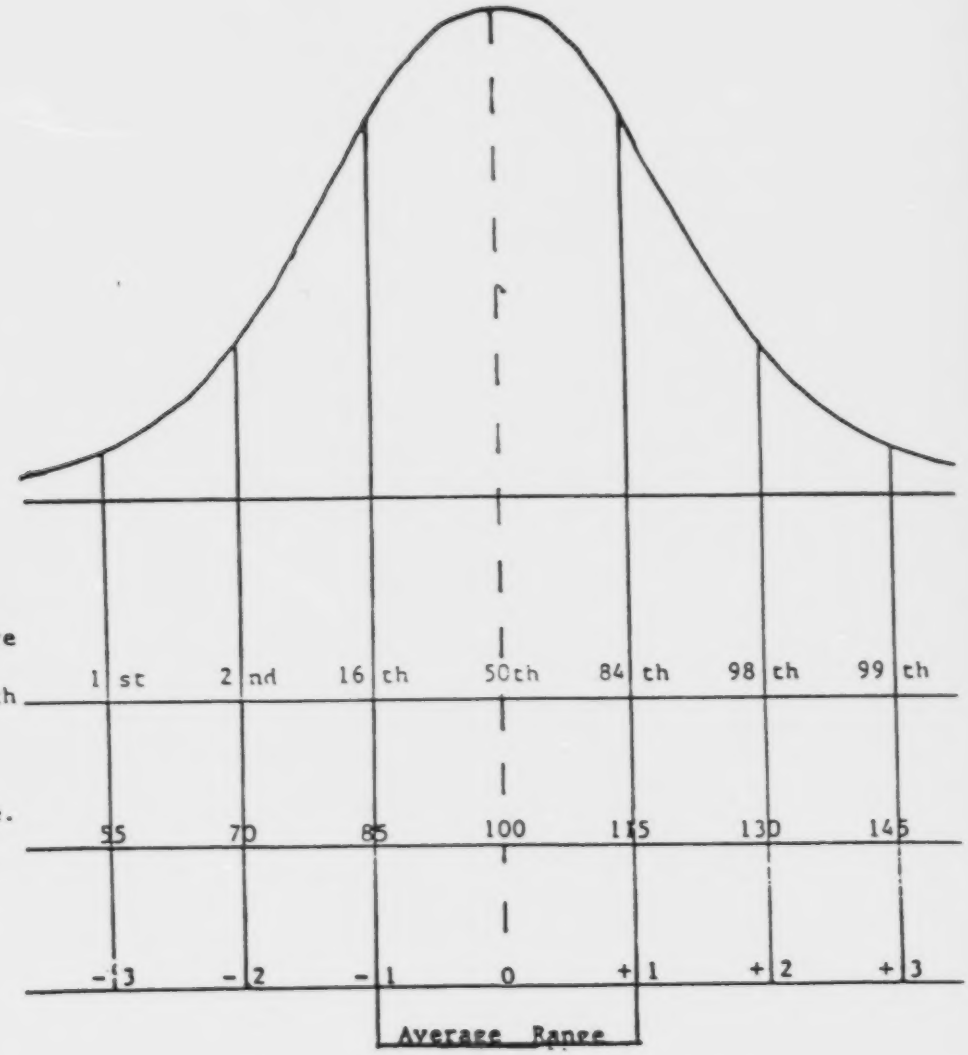
> It is important to evaluate the standardization procedures used by the author for two reasons: (1) frequently authors base their final item selection on the performance of the normative sample; and (2) this population is used to evaluate the child's performance in relation to others. It is necessary to know whether the norm sample is representative of the population it is intended to represent and whether children are represented according to characteristics in the appropriate proportion (i.e., proportion according to age, sex, race).... It is extremely important that, when selecting norm referenced tests, the examiner is confident about the procedures used by the author in selecting a normative sample. If there is little evidence to suggest that satisfactory procedures were followed, then it is best to either reject the test or use it for purposes other than determining the child's performance in relation to others. (pp. 6-7)

Norms and Derived Scores

Raw scores provide little information about a child's performance in relation to other children. However, raw scores may be converted to a variety of derived scores. The three kinds of derived scores most frequently used are developmental or age-equivalent scores, percentiles, and standard scores. The advantages and limitations of each kind of derived score are discussed briefly here. More complete explanations can be found in measurement texts, such as those by Anastasi (1976, chapter 4) and Salvia and Ysseldyke (1985, chapter 5). McCauley and Swisher (1984a, 1984b) apply the information specifically to speech/language assessment. Figure 1 illustrates the relationship between various types of standard scores and how these scores relate to the normal distribution curve.

Before considering each type of score, it is necessary to consider an extremely important concept known as "standard error of measurement." This statistic attempts to account for the fact that the score a child earns on any given administration of a test is an **estimate** of the child's true score relative to the behavior being considered. Test users cannot assume that a child's obtained score is the child's **true** score. The standard error of measurement indicates how much we would expect a person's score to vary if examined repeatedly with the same test (assuming that no learning occurs). Although a true score can never really be determined, it is possible to determine a range of score values within which the true score is most likely to fall. This range is the **confidence interval.** Some test manuals include standard error of

FIGURE 1


STUDENT'S PERFORMANCE
PERCENTILE RANK
Gives the percentage of student's in the national sample who obtained a score below a student's score.
Average Range: 16th to 84th
STANDARD SCORES
Shows how far a score is above or below the average.
Average Range: 85 to 115
STANDARD DEVIATION UNITS
How far a score is above or below the average.
Average Range: -1 to +1
1 st
2 nd
16 th
50th
84 th
98 th
99 th
55
70
85
100
115
130
145
-3
-2
-1
0
+1
+2
+3
Average Range

measurement values and corresponding confidence intervals. An example from McCauley and Swisher (1984b) illustrates the concept: a child receives a raw score of 75 on a test for which the mean score for this age is 100 and the standard deviation is 10. According to the test manual, the reliability coefficient for the test is .70. Given these pieces of information, the confidence interval around the true score can be calculated, if it cannot be obtained from the test manual. In this example, the 95% confidence interval around the true score extends from 71.76 to 93.24. Thus, the examiner can be 95% sure that the child's true score falls between the values of 71.76 and 93.24.

The standard error of measurement illustrates the loss of precision that results when tests of low reliability are used. When test reliability is high, there is less error in the measurement and the standard error of measurement is smaller. When reliability is low, we are less confident that an observed score is the true score.

Age-equivalent or developmental scores often are considered a useful method of presenting test norms for behaviors or abilities that change considerably with age during childhood and adolescence. However, they are subject to a number of interpretative errors (Salvia & Ysseldyke, 1985) and are not recommended for use when making placement decisions. One of the problems with age-equivalent scores is that they are not necessarily based directly on evidence collected for children of that chronological age (Salvia & Ysseldyke, 1985). Instead, a given age-equivalent score often is calculated indirectly either by interpolating between two ages for which data are available to older or younger ages, for which data were not gathered. Dependence on indirectly estimated (interpolated or extrapolated) scores, therefore, may involve assumptions about the continuity of development across chronological age that cannot be justified. Thus, extrapolated and interpolated age-equivalents are likely to be less stable estimates of the child's behavior than other kinds of derived scores (McCauley & Swisher, 1984b). Age-equivalent scores do not take into account the normal individual differences to be expected within any age group. They do not provide evidence about whether a child who scores below the average obtained by age peers did so by an amount that represents normal variation or by an amount that is sufficiently unexpected to suggest impairment. Thus, age-equivalent scores are not recommended for use when making placement decisions. Some practitioners suggest that they may have some value, however, as a communication tool in sharing information with parents.

Percentage of delay scores are based on computing a child's developmental quotient by using an age equivalent test score and the child's chronological age. The reporting of percent delay is **improper** and **should not be done.** Problems with percentage of delay scores include:

- Using age-equivalent scores in computation. The limitations of age-equivalent scores hold true when applied to the calculation of percent delay.

- Lack of standardization in calculation of percent delay. Without consistency in procedure, entrance criteria cannot be applied in an equitable way to all children and assessment reports cannot be accurately interpreted.

- Impossibility of measuring development in such finite units. For example, delays of 27% and 25% in language development may be reported. However, development cannot be measured or distinguished in units of this magnitude.

Percentile ranks indicate the percentage of individuals in the normative group whose test scores fall below a given value. Because percentiles indicate the position of a test taker's score relative to the scores of the normative sample, percentiles make it easy to compare the test taken with the normative group. Percentiles do have some disadvantages (Anastasi, 1976). Percentiles often have unequal score units, with the differences between percentile ranks being greatest at the high and low ends of the percentile scale, i.e., below 10 or above 90. As a result, a child performing at a low percentile level must make more correct responses to get a higher score than a child in the middle percentile range. This property of percentile ranks makes it impossible to determine the actual size of the score difference that separates individuals who receive different percentile ranks.

Standard scores are considered by some to be the most satisfactory kind of derived score for a number of reasons (Anastasi, 1976). Although they are slightly more difficult to understand and calculate than percentiles and age-equivalent scores, their calculation makes use of information about the average score and variability of scores obtained by the normative sample. Because of this, standard scores can be used more flexibly than the other derived scores. They can be used to estimate the position of a test taker's score relative to the scores obtained by the normative sample, to compare one student's scores on two different tests, and to compare one person's score to someone else's in a meaningful way. The most typical standard score has a mean of 100 and a standard deviation of either 15 or 16.

Guidelines for Test Review

The four aspects of technical adequacy described above constitute the basic information that a test user should have about any norm-referenced test. Criteria that address these characteristics, and the standards by which to determine whether criteria have been met, can be applied to available tests. These characteristics should be considered every time an assessment instrument is selected for use in evaluating a child. The failure of an instrument to meet these criteria or to provide information on them has serious implications for the merits of the instrument.

In this section, psychometric criteria are stated, followed by the standards that should be used to determine whether a test passes or fails each criterion. The potential outcomes of unmet criteria are described. Criteria, standards, and potential outcomes are adapted from those of McCauley and Swisher (1984a) and Bracken (1987b).

Criterion 1. Evidence of concurrent validity should be supplied in the test manual. To pass this criterion, the test manual must provide empirical evidence that categorizations of children as normal or impaired that are obtained using the test agree closely with categorizations obtained by other methods that can be considered valid, such as teacher judgments or scores on other validated tests.

Outcome if unmet. The absence of this kind of evidence calls into question a test's ability to help with assessment questions related to the existence of impairment. Because the reason for using a norm-referenced test is to enable the test user to compare a child's score against the scores of other children, the failure of a test on this criterion should cause the test user to question the usefulness of that test.

Criterion 2. Evidence of predictive validity should be supplied in the test manual. To pass this criterion, a test manual must include empirical evidence that it could be used to predict later performance on another, valid measure of the behavior addressed by the test in question.

Outcome if unmet. Evidence of this kind of predictive validity enables the test user to make assessment decisions related to the need for special education services. This characteristic is especially important for intelligence tests. Its absence means that other, possibly invalid sources of information, will be weighed in the decision process.

Criterion 3. Evidence of content validity should include information about the content areas and skills covered by the test, with some indication of the number of items in each category, as well as the procedures followed in selecting categories and classifying items.

Outcome if unmet. Without this type of evidence, the test user cannot be certain that the test represents the behavior domain to be measured. For example, a test can easily become overloaded with those aspects of the field that lend themselves more readily to the preparation of objective items (Anastasi, 1976). Also, content validity should reduce any tendency to overgeneralize regarding the domain sampled by the test and the possible inclusion of irrelevant factors in the test scores. Adequate content validity is especially important for achievement tests.

Criterion 4. An estimate of test-retest reliability for relevant subgroups should be supplied in the test manual. To pass this criterion, the test manual must supply empirical evidence of test-retest reliability, including a correlation coefficient of .90 or better (Salvia & Ysseldyke, 1985) that was statistically significant at or beyond the .05 level (Anastasi, 1976).

Outcome if unmet. Without this information, the test user does not know to what extent test results are stable and to what extent they will fluctuate over time. A correlation coefficient of .90 is considered a minimum standard of reliability when a test is used to make decisions regarding the existence of a problem (Salvia & Ysseldyke, 1985).

Crtierion 5. Reliability of total test internal consistency should be reported in the test manual. To pass this criterion, the test manual must report empirical evidence of internal consistency, including a correlation coefficient of .90 or greater (Bracken, 1987b).

Outcome if unmet. As with test-retest reliability, the lack of adequate internal consistency in an instrument precludes its use for making placement decisions.

Criterion 6. The sensitivity of the test should be promoted by controlling the steepness of the item gradients. To pass this criterion, the test must have no fewer than three raw score items per standard deviation. In other words, each test item should be equivalent to no more than one-third of a standard deviation (Bracken, 1987a).

Outcome if unmet. When standard scores increase or decrease as a function of a child's success or failure on a single test item, the test is less sensitive to small incremental differences in the child's abilities. Thus, it is less effective in assessing the child's ability levels.

Criterion 7. A test should have enough easy items to discriminate properly at the lower end of the range. To pass this criterion each subtest floor and the total test floor should be two or more standard deviations below the normative mean score for that subtest or the total test (Bracken, 1987b).

Outcome if unmet. If the test floor is too high, persons who would normally scatter over a considerable range on the test will obtain zero or near-zero scores. In addition, the test will fail to discriminate between those who with mild handicaps and those with more significant difficulties.

Criterion 8. The test manual should clearly define the standardization sample. To pass this criterion, a test must give information about the age, sex, geographic residence, race, intelligence, and socioeconomic status of the normative sample and the inclusion/exclusion of individuals with specific disabilities (Salvia & Ysseldyke, 1985).

Outcome if unmet. Without this information, the test user cannot tell whether the normative sample is representative of the test author's intended population and whether it is the population against which the test taker's performance should be compared.

Criterion 9. For each subgroup examined during the standardization of the test, an adequate sample size should be used (American Educational Research Association et al., 1985). In order to pass this criterion, a test must have subgroups with a sample size of 100 or more. This particular value is consistently referred to by authorities as the lower limit for adequate sample sizes (Salvia & Ysseldyke, 1985; Weiner & Hoock, 1973).

Outcome if unmet. If a small sample size is used, the norms are likely to be less reliable, that is, less stable; use of a different group of children might result in different norms. In addition, individuals in relatively low incidence populations might not be included in the sample because of the small number of subjects. This possibility makes the interpretation of the scores of possibly impaired children difficult. The smaller the sample size, the greater are the problems (Salvia & Ysseldyke, 1985; Weiner & Hoock, 1973).

Criterion 10. Measures of the central tendency and variability of test scores and/or percentile ranks should be reported in the manual for relevant subgroups in the normative sample. To pass this criterion, the means and standard deviations and/or the percentile ranks must be given for the total raw scores for each of the relevant subgroups.

Outcome if unmet. The mean is the average score received by members of the normative subgroup. The standard deviation gives the test user an estimate of the degree of variation among the scores received by subgroup members. Because these pieces of information can also serve as the basis for other ways of presenting the norms (e.g., z scores), their absence robs the test user of flexibility in the use of the test norms. Although percentile ranks have some disadvantages, they do provide an acceptable means of comparing the test taker with the normative group.

Key Points to Remember

- **Validity refers to the extent to which a test accurately measures what it is designed to measure.**
- **Reliability refers to the extent to which a test provides stable measures, ones that are consistent.**
- **Standardization procedures and the normative sample must be appropriate.**
- **Age-equivalent or developmental scores should not be used when making placement decisions. Percentage of delay scores should not be used.**
- **Psychometric criteria should be considered every time an instrument is used to assess a child.**

CHAPTER FIVE

CONVEYING ASSESSMENT INFORMATION TO OTHERS

Chapter Five Topics

Staffing/feedback sessions
Guidelines for written reports

CHAPTER FIVE

CONVEYING ASSESSMENT INFORMATION TO OTHERS

The assessment process does not end when the administration and interpretation of tests and other measures are completed. Assessment information must be conveyed to parents, agencies, and other professionals. The purpose of this chapter is to discuss the transmission of information at staffing/feedback sessions and in written reports.

Staffing/Feedback Sessions

The process of providing parents with feedback starts when the child is initially referred for assessment and/or services. Since the parents are to be involved in the gathering of data, as well as in the placement decision and program planning, professionals can help prepare parents from the beginning stages for what they will hear at the end of the process. Professionals must bear in mind that the major goal in providing feedback to parents is to help them to understand the nature of their child's handicap. Therefore, it is imperative that information be conveyed in a way that assures that it will be understood and can then be assimilated. That is, feedback--both oral and written--must be given in lay language and should avoid professional jargon whenever possible. Even the more common terms such as "cognitive," "receptive/expressive language," "articulation," and "fine/gross motor" need to be defined clearly for parents. Additionally, parents should be provided with examples to support all general statements about the child's behaviors and abilities.

Feedback should be delivered in a caring and sympathetic manner. Professionals who provide feedback and/or attend the staffing must remember that while they go through such meetings daily, this is probably the first time that these particular parents have been through a staffing process or anything similar to it. In addition, the news that parents hear from professionals who have conducted assessments is almost always hard to hear. Even parents who are aware and accepting of their child's problems, find attending a staffing to be an emotional ordeal. If possible, parents should take part in the decision regarding who should attend the formal staffing and whether they prefer all, some, or one of the evaluation team members to present the interdisciplinary results to them. Some parents may be more comfortable hearing the results of the various assessment components from one professional, while others may request attendance of all professionals who saw the child. In any case, the assessment team members have the responsibility to know the child as a whole (based on input from other team members) and not to give the parent mixed or confusing messages about the child's development and needs.

All staffing sessions should begin with the introduction of attendees by name, title, and/or relationship to the child. Professionals should begin the discussion of the results by reviewing positive points about the child's behaviors or abilities. This will help to relax the parents and ensure them that the professionals do not focus only on the "problems."

Active involvement of parents can be encouraged by asking questions and providing information. The professionals should make sure that the parents understand the information that is being presented and should assure that the parents are allowed to express whatever emotions--anger, frustration, distress--they wish. It is always a good practice to designate one professional team member to serve as the parents' primary contact and support person throughout the assessment/staffing/placement process. This person should also be designated to facilitate the staffing session.

While the parents should be encouraged to confront the issue of their child's handicap, the encouragement should be gentle and supportive. If parents need additional time to assimilate the information they are hearing, they should be allowed that courtesy.

While parents are entitled to all available information regarding their child, professionals should be careful not to overload the parents with excessive amounts of information, especially at the beginning. Rather than reporting assessment results on a test-by-test basis and giving lists of scores, professionals are urged to share more descriptive information and to do so in an integrated summary of the assessment data. Most parents quickly get lost when confronted with nothing but numerical data that they are unable to understand or assimilate.

When test scores are given, they should be in a form that is understandable to parents. For example, a percentile score generally is easier to grasp than a standard deviation score. That is, rather than saying "Johnny scored two standard deviations below the mean," one might report that "Johnny's score placed him at the second percentile when compared to other children of his chronological age. That means that out of 100 four year olds given these tasks to do, two scored the same or lower than Johnny, and 98 scored better." Age equivalent scores should be avoided when reporting results of testing (see Chapter Four). However, for parents who appear to be having difficulty understanding their child's development, a statement such as, "Johnny's language understanding and use is more typical of a child at **approximately** the two and one-half year age level" may be helpful.

Following presentation of the results, the team should suggest general recommendations to the parents and provide them with service options. Involving the family in this part of the decision-making process, as has been done in the previous assessment steps, will help continue to build mutual trust. Also, in most cases it may be helpful for professionals to suggest ideas to parents about what they can do immediately, yet informally, during the family's daily routine to help the child.

When referrals are made from non-school based sources or to outside agencies or service providers, educational professionals will need to maintain open lines of communication. (Of course, before any sharing of information can take place, parental permission must be obtained.) Information should be shared on a need-to-know basis. That is, not all of the information that an agency has is necessarily needed by another agency; if information is not needed, it should not be provided.

Guidelines for Written Reports

Any professional who gathers information that will have a bearing on placement or programming decisions should prepare a written report. Reports are a means of communicating the results of an evaluation of a specific child to the child's parents and to other professionals. They provide baseline information about a child's behaviors and abilities at the time of the evaluation. This baseline information is important for treatment planning, evaluation of progress, and assessment of intervention.

Reports best serve their communicative function if they are written in a clear, precise, and straightforward manner. Because reports are written for parents, they should convey information without technical terms or jargon. While statistical information and test scores are essential for the other professionals who read the report, any numerical data should always be accompanied by a non-technical interpretation of what those numbers mean. A good report has the following characteristics:

- **Describes the Child.** A good report is child centered. That is, the focus is on the child, not on the test(s) given or the scores earned. The report describes the child's behavior and offers hypotheses for why the child might have earned the scores. The report should describe the child as a unique individual.

- **Answers a Specific Referral Question.** The reason a child is referred for assessment should determine not only what assessment tools are used but how the report is structured. Reports should be tailored to the specific concerns raised about the child. Information provided in the report should be integrated so that it clarifies and answers, as much as possible, the referral question.

- **Synthesizes and Integrates Information.** Tests should be used only by professionals who have been trained both to administer and to interpret them. Because of their training, professionals are the persons best qualified to know what the results of the tests they have administered say about the child who was assessed. Test by test reporting of scores is of little value to the consumers of reports, since they rarely are trained to know what those scores mean. It is, therefore, the responsibility of the test giver to provide parents and professionals in other fields with an interpretation of test data.

  The reason for gathering data from multiple sources is to provide a more complete picture of the child's behaviors, levels of functioning, and pattern of skills. However, if this information is not organized and integrated, it is of limited use.

- **Provides Explicit, Specific, and Useable Recommendations.** Assessment data that have been integrated and that reflect the functioning of the child should lead the writer to specific recommendations. The recommendations must be realistic and useable, otherwise teachers and parents will have difficulty implementing them. They should emphasize skill areas needing remediation and the types of activities/instruction that will aid in that remediation. Recommendations contained in professional reports should aid in the writing of the IEP. They should **not** be focused on service providers or specific services since these are determined by team consensus when the IEP is written.

- **Written in a Timely Manner.** In order for reports to be most useful, they should be written as soon as possible after the assessment is complete. They must be written before placement and programming decisions are made. Parents and teachers benefit from timely feedback, and professionals who write reports while assessment information is fresh are more likely to write accurate and complete reports.

Further guidelines about the content and form suggested for preparation of clinical reports, from Moore (1969) and Pannbacker (1975), are provided in Appendix D.

Key Points to Remember

- **Information must be conveyed with sensitivity about family adjustment.**
- **Feedback to parents actually starts when the child is initially referred.**
- **Any professional who gathers information that has a bearing on placement on programming decisions should prepare a written report.**
- **Written reports should describe the child, answer a specific question, synthesize and integrate information, and provide useable recommendations.**

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APPENDIX A

REGULATIONS

3525.2500 IDENTIFICATION OF HANDICAPPED CHILDREN

School districts shall develop systems for locating all children residing within their jurisdiction who may be handicapped. Those systems shall be designed to identify preschool age handicapped children, handicapped persons attending school, and handicapped persons of school age who are not attending any school.

The district's identification system shall be developed in accordance with the requirement of nondiscrimination.

3525.2600 FORMAL EDUCATIONAL ASSESSMENT

Subpart 1. Assessment An Assessment:

A. must be conducted when because of a person's performance in the present educational placement or presenting handicapping conditions, he or she is thought by the school district to be in need of possible initiation or change on the student's educational placement or program or special education services as set forth in part 3525.2900, subpart 5 which will provide an educational program, including special education services appropriately suited to the person's needs;

B. must be conducted if the parent requests.

Subpart 2. Function of the assessment. The assessment must reflect the person's current level of performance and shall:

A. Be appropriate to the presenting problem and include observation, evaluation, and testing of the person's intellectual, academic, verbal, emotional, adaptive behavior, sensory, physical, and social development.

B. Include a review of the person's learning environment and learning modes. When the team determines it to be necessary because of racial, cultural, or other differences presented by the person or due to the nature of the student's presenting handicapping condition they shall make reasonable efforts to obtain information from the parents relating to the student's functioning in his or her total environment.

C. Be provided and administered in the person's primary language or mode of communincation unless it clearly is not feasible to do so.

D. Be performed in accordance with recognized professional standards which include recognition or accommodation for persons whose differences or conditions cause standardized instruments to be invalid and otherwise in accordance with the requirements of nondiscrimination.

3525.2700 CONDUCT PRIOR TO THE ASSESSMENT

Prior to conducting an assessment the district shall:

A. Review the screening, referral, or other data about the person and select licensed special education personnel and others as appropriate to conduct the assessment.

B. Include on the assessment team licensed special education personnel and others who may have the responsibility for implementing the educational program for the person.

C. Conduct the educational assessment preferably at the school which the person attends. When the district determines that the assessment or a portion of the assessment cannot be performed utilizing the personnel resources of the district, the district shall make arrangements elsewhere for that portion of the assessment and shall assume all costs for such assessment.

D. Conduct the assessment within a reasonable period of time not to exceed 30 days from the date the district receives parental permission to conduct the assessment or the expiration of the ten day parental response time in cases other than initial assessment, unless a conciliation conference or hearing is requested.

3525.2800 NOTICE BEFORE ASSESSMENT

Notice before assessment:

A. Must be provided in accordance with the provisions of parts 3525.3200 to 3525.3500 prior to conducting a formal educational assessment or reassessment or when the district receives a parent's written request to conduct a formal educational assessment or reassessment. In cases where a district receives a parent's written request to conduct a formal assessment or reassessment, the district shall serve notice of its decision within ten days of their receipt of the written request.

B. Is not required for actions which area components of the district's identification system including large group screening, individual student observation within the regular classroom, informal inventories, and consultation between regular and special education personnel.

APPENDIX B

SAMPLE BEHAVIOR OBSERVATION FORMS

TIME SAMPLING RECORD FORM

Child's name: _____ Observer: _____

Date of Observation: _____ Time period: _____

Observation Plan:

1. Observational data will be collected from _____ to _____.
2. How often will behavior be sampled (e.g., on the hour, on the half hour)? _____
3. What is the length of each observation segment (e.g., 5 seconds, 10 seconds, etc.)? _____

Setting of Observation: _____ Time period: _____

Each line should contain an X if the target behavior was observed during the observation segment and an O if the behavior was not observed.

Time	X/O	Time	X/O

Summary:

Number of Xs _____ ÷

Number of Samples taken _____ =

Rate of behavior _____

INTERVAL RECORDING RECORD FORM

Child's name: _____ Observer: _____

Date of Observation: _____ Time: _____

Target Behavior (defined in behavioral terms):

Setting of Observation (describe place, activity, persons present):

The sample format on the next page requires a 20-minute observation period, divided into 15 second intervals. Each box should contain an X if the target behavior was observed during the interval and an O if the behavior was not observed.

	:15	:30	:45	:00	Total number of "X"s in each minute
Minute 1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

TOTAL _____

Summary:

Divide the total number of Xs by the total number of observation intervals (there are 80 on this form) to calculate the rate at which the target behavior occurred: _____

INTERVAL RECORDING USING A RANDOM PEER FOR REFERENCE

Child's name: _____ Observer: _____

Date of Observation: _____ Time: _____

Setting for Observation:

Target Behavior:

Instructions:

Each minute of observation time will be divided into four 15-second segments. During the first 15 seconds of each minute, observe the target child. During the second 15 seconds, record (in the first column of the record sheet) an "X" if the target behavior occurred during the observation interval. The random peer is actually a different child each minute of the observation. The easiest way to select the random peer is to predetermine a selection method--such as going up and down the rows in the classroom--so that each peer is selected once before beginning the rotation again. During the next 15-second period, observe the random peer. During the final 15-second period of each minute, record with an X or 0 the behavior of the random peer.

In summary, observe using this cycle for each minute in the observation period:

01-15 seconds:	observe target pupil
16-30 seconds:	record presence or absence of above behavior
31-45 seconds:	observe a peer "at random"
46-60 seconds:	record the presence or absence of above behavior

Minute	Target Child (01-15) Seconds	Random Peer (31-45) Seconds
:00		
:01		
:02		
:03		
:04		
:05		
:06		
:07		
:08		
:09		
:10		
:11		
:12		
:13		
:14		

Minute (cont.)	Target Child (01-15) Seconds	Random Peer (31-45) Seconds
:15		
:16		
:17		
:18		
:19		
:20		
:21		
:22		
:23		
:24		
:25		
:26		
:27		
:28		
:29		
Total Number of X's		

Summary Data:

Divide the total number of Xs for the target child by the total number of intervals observed. The rate at which the target behavior occurred for the target child was _____.

Repeat for the random peer column. The rate at which the target behavior occurred for the comparison group was _____.

EVENT RECORDING RECORD FORM

Child's name: _____ Observer: _____

Date of Observation: _____ Time: _____

Target Behavior (defined so that it is clear when a behavior episode begins and ends):

Setting of Observation:

How many times did the behavior occur (count each entire episode as one time)?:

Divide the number of episodes observed by the total time observed (minutes if the behavior occurs very often; hours if the behavior occurs rarely). The target behavior occurred at the rate of _____ episodes per _____ (time/unit).

DURATION RECORDING FORM

Child's name: _____ Observer: _____

Date of Observation: _____ Time: _____

Target Behavior:

Setting of Observation:

	Starting Time	Stopping Time	Total Length of Episode
Episode 1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
		TOTAL	

Summary of Data:

1. What was the total length of time in which the subject was engaged in the target behavior?

2. What was the total length of the observation period?

3. Divide the amount of time the subject was engaged in the behavior (#1 above) by the length of the observational period (#2 above). Be sure both are in the same units (i.e., either seconds or minutes). The resulting number is the rate of occurrence:

LATENCY RECORDING FORM

Child's name: _____ Observer: _____

Date of Observation: _____ Time: _____

Target Behavior:

What stimulus will mark the beginning of the observation period?

What behavior on the part of the child will indicate the end of the observation latency, that is, what suggests that compliance has begun?

Setting of Observation:

	Time at End of Stimulus Event	Time at Beginning of Response (Compliance)	Length of Latency Period
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

Summary of Data:

Calculate the average latency by adding up the last column above (right) and dividing by the number of behavior pairs observed (left column).

APPENDIX C

PARENT QUESTIONNAIRE: SOCIAL AND DEVELOPMENTAL HISTORY

Note: Several of the forms included in this Appendix were adapted from those used by the Clay County Coordinated Preschool Program.

APPENDIX C

PARENT QUESTIONNAIRE: SOCIAL AND DEVELOPMENTAL HISTORY

Child's Name: _____ Date of Birth: _____ M F

Interviewer: _____ Date of Interview: _____

Home Address: _____ Phone: _____

_____

Mother's Name: _____ Father's Name: _____

Mother's Occupation: _____ Father's Occupation: _____

Mother's Education: _____ Father's Education: _____

Does child live with ____ natural parents ____ adoptive parents

____ step parent(s) ____ single parent

List others who live in the home with the child:

Name	Age	Relationship
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Does anyone in the family have a history of (check all which are appropriate):

Visual problems	_____	Seizures or convulsions	_____
Hearing problems	_____	Mental Retardation	_____
Speech problems	_____	Heart difficulty	_____
Emotional problems	_____	Reading difficulty	_____
Birth defects	_____		

If yes to any, please explain:

PREGNANCY/DELIVERY/MEDICAL HISTORY

What was the mother's age at child's birth? _____

During this pregnancy, did the mother experience any unusual illness, condition or accidents (for example: bleeding, RH condition, German measles, radium or x-ray, medication or treatment, falls or accidents, etc.). If so, please describe:

Did mother take any drugs or medicines including tobacco, alcohol, diethylstilbestrol, during this pregnancy? ___Yes ___No
If yes, describe:

What was the length of pregnancy? _____

Length of labor? _____ Type of anesthetic? _____

Position of baby? _____ Normal _____ Breech
_____ Forceps used? _____ Caeserean?
Any complications?

Were there any unusual conditions at or immediately after birth?

Was baby kept in the hospital after mother was discharged? ___Yes ___No
If yes, for how long? Why?

What was the birth weight? _____lbs. _____oz.
What illnesses, accidents, or operations has the child had?

Describe child's present condition of health.

If the child has any physical handicaps, describe fully:

Has your child ever had:

_____ seizures _____ convulsions
_____ periods of unconsciousness or prolonged high fever
_____ ongoing or previous medical service
If so, explain:

Has your child ever had a head injury? ___Yes ___No
If yes, describe:

Does she/he have any allergies? _____

Does your child take any kind of medication regularly? _____

When was your child's last complete physical examination? _____

Has your child had his/her vision checked professionally? _____
When?

Has your child had his/her hearing checked professionally? _____
When?

DEVELOPMENTAL MILESTONES (Indicate the age in months when the child first did each of the following. Please be as specific as possible.)

Sat alone	____	Recognized parents	____
Stood with support	____	Showed fear of strangers	____
Walked unsupported	____	Rode tricycle	____
Spoke single words	____	Ran with good control	____
Spoke simple sentences	____	Toilet training complete	____
Smiled	____	Ate alone	____

SCHOOL HISTORY

Does your child attend preschool and how often?

Has your child ever received speech therapy? If so, when, where and from whom?

Has your child ever received any other type of therapy (physical, occupational, psychological, etc.)? If so, when, where, for what purpose, and from whom?

Describe any problems that you are aware of (past or present):

Is there any additional information that you think would be of value to us in assessing your child's strengths and weaknesses?

Has previous testing been done? If so, by whom?

SOCIAL HISTORY

Describe a typical weekday for your child. Describe a typical Saturday.

Describe your child as you see him/her. Is she/he fairly good natured, fairly easy to get along with? Difficult or easy to control?

Does your child get hurt easily? Is your child awkward or clumsy? How does she/he react when she/he gets hurt?

Can your child take care of him/herself in a group of children? With brothers and sisters?

What are some of the rules and regulations you have laid down for your child to abide by?

What are some of the things, such as responsibilities, behavior, etc., that you expect of your child? Does he/she have any regular chores?

What are some of the things that your child does that require punishment? How do you usually punish him/her? How does he/she react to this?

All children can get pretty annoying at times. What are some of the things that your child does that irritate you or get on your nerves? Does he/she make you pretty nervous at times? How?

How do you think other people (such as relatives, neighbors, etc.) see your child?

FAMILY INFORMATION

Child's Name: _____

Completed by: _____

Date: _____

		Myself	Spouse/other Significant Adult Living in Home
1.	Age	_____	_____
2.	Work out of home	_____	_____
3.	Marital Status	_____	_____

4. Level of Annual Family Income (please check one):

$0 - $10,000 _____
$10,000 - $15,000 _____
$15,000 - $20,000 _____
$20,000 - $30,000 _____
$30,000 and above _____

5. Number of family members living in home: _____

6. Other children in family:

Name	Age

7. Child's Pediatrician/Clinic: _____

_____

8. Testing my child has received in the past:

_____

_____

_____

9. Describe the health status of your child:

10. My family has received services from the following agencies in the past:

County Social Services	_____
County Public Health	_____
Services to Children with Handicaps	_____
Mental Health Center	_____
Medical Assistance	_____
Supplemental Security Income (SSI)	_____
Aid to Family W/Dependent Children (AFDC)	_____
Women, Infants, and Children (WIC)	_____
Respite Care Services	_____

11. Why do you think your child and family were referred?

We thank you for completing these questions. If you have other information you would like to share with us or have additional questions, please indicate below:

Comments or questions:

QUESTIONNAIRE FOR PARENTS OF TODDLERS/PRESCHOOLERS

1. Provide a description of your child's day.

   wake up time -

   child meal times -

   family meal times -

   nap times -

   other times that will help us in planning for your child -

   sleep time -

2. List the places your child goes with you or your whole family on a regular basis.

3. List the places your child spends away from you.

4. Does your child go to a day care or sitter on a regular basis? If so, please provide name, address, and telephone number:

5. What are your child's favorite foods?

   What foods can your child eat independently?

   Does your child like a wide variety of foods or is s/he a picky eater?

6. When is the best time of the day for your child to play with dad or other important males? With mom or other important females?

7. What are your child's favorite toys?

8. Does your child have any allergies or use medications?

9. Is your child toilet trained?

_____
Parent Signature Date

_____ _____
Child's Name Age

CHECK THE RESOURCES YOU HAVE FOUND MOST HELPFUL TO YOU AND YOUR FAMILY

Friends, Relatives, Etc.

___ 1. My faith in myself
___ 2. My own motivation
___ 3. My religion
___ 4. Close friend
___ 5. Neighbor
___ 6. Spouse/significant other
___ 7. My mother
___ 8. My father
___ 9. My mother-in-law
___ 10. My father-in-law
___ 11. Son
___ 12. Daughter
___ 13. Other relative (specify relationship to you)
___ 14. Babysitter
___ 15. Other parents of children with special needs
___ 16. Co-Worker
___ 17. Foster Parents
___ 18. Other person (specify)

Professionals

___ 1. My child's teacher
___ 2. Speech and Language Therapist
___ 3. Occupational Therapist
___ 4. Psychologist from school/ private agency
___ 5. Director or Administrator in special education
___ 6. Educational advocate
___ 7. Counselor
___ 8. Psychiatrist
___ 9. Social Worker in the community
___ 10. Minister/Rabbi/Priest
___ 11. Public health nurse
___ 12. Family doctor
___ 13. Our pediatrician
___ 14. Genetic Counselor
___ 15. Pediatrician from speciality clinic
___ 16. Ear, Nose and Throat Specialist
___ 17. Orthopedist
___ 18. Neurologist
___ 19. Audiologist
___ 20. My employer
___ 21. My husband/wife's employer
___ 22. Vocational Counselor
___ 23. Lawyer
___ 24. Previous teachers
___ 25. Other (specify)

Places or Services

___ 1. Association for parents of children who are handicapped (specify) e.g. ARC
___ 2. Parent support group
___ 3. Hospital support group
___ 4. Mental Health Center
___ 5. Current special needs preschool program
___ 6. County Social Services
___ 7. Supplemental Security Income (SSI)
___ 8. Medical Assistance
___ 9. Health Insurance
___ 10. Aid to Families w/Dependent Children (AFDC)
___ 11. Public housing services
___ 12. Food stamps
___ 13. Women, Infants, and Children (WIC)
___ 14. Public Health Services/Maternal Child Health
___ 15. Homemaker Services
___ 16. Community Education programs/Early Childhood Family Education
___ 17. Libraries, bookstores, newspapers
___ 18. People at church/synagogue
___ 19. Day care center
___ 20. Head Start
___ 21. A university or community college
___ 22. Recreational activities in community
___ 23. Clubs related to my hobbies
___ 24. Respite care services
___ 25. Service to Children with Handicaps Clinic
___ 26. Family planning services
___ 27. Adoption Agency
___ 28. Other (Specify)

Child's Age: _____ ___

Date Completed: _____

_____
Parent's Signature

BEST COPY AVAILABLE

PARENT RESPONSE FOR ASSESSMENT

It is very important that you be aware of and understand that you have the following rights:

1. You have the right to review and receive copies of all records and written information related to this assessment.

2. You have the right to provide information about educational needs and to participate in developing the educational program plan.

3. You have the right to be fully informed and receive explanations of the results of the testing.

4. You have the right to get your own evaluation from another individual or agency at your own expense.

5. You have the right to refuse the evaluation.

6. Your child's educational program will not be changed without your knowledge.

After reading the above explanation of your rights, please check one of the boxes below:

___ Yes, I consent to the assessment.

___ Explain further, please contact me.

___ I do not give my consent for assessment.

_____ _____

Signature: Parent or Guardian Date

The results of the assessment are confidential and will be discussed with you at a conference on _____ (Date) at _____ (Time).

The conference will be held in _____ (Room #) at _____ (Building).

QUESTIONNAIRE FOR PARENTS OF INFANTS

1. Give me an overview of your child's day. Include feeding time for baby, nap times and play times with adults and/or brothers and sisters, bed time, wake up time, meal times for family.

2. List any special considerations with regard to your child's feeding (e.g., formulas used, spoon feeding, strong suck).

3. When is the best time to play with your baby?

   Dad:

   Mom:

   When is your baby the most tired, difficult or irritable?

4. What kinds of play or toys does your baby like most?

5. Does your child sleep through the night?

6. Does your child use a day care or sitter on a regular basis? If so, who is your sitter? Please provide the name, address and telephone number.

_____

Parent's Name Date

_____

Infant's Name and Age

AUTHORIZATION TO BE PHOTOGRAPHED, VIDEO AND AUDIO TAPED

I, _____, hereby give my permission to have my child, _____, ___ photographed, and/or ___ video taped, and/or ___ audio taped for purposes of observation, assessment and demonstration purposes.

X_____

Date: _____ _____

APPENDIX D

GUIDELINES FOR PREPARATION OF CLINICAL REPORTS

APPENDIX D

MOORE'S (1969) GUIDELINES FOR PREPARATION OF CLINICAL REPORTS*

Rule 1: Use definite, specific, concrete language.

Correct Example: The child, 10 years, did not match colors, did not hand the examiner three blocks, did not draw a recognizable man.

Incorrect Example: The child appeared to be mentally retarded.

Rule 2: Do not take shortcuts at the cost of clarity.

Correct Example: These tests were administered: Peabody Picture Vocabulary Test, Vineland Scale of Social Maturity, Wechsler Intelligence Scale for Children, Stanford-Binet Intelligence Scale, Form L-M.

Incorrect Example: The PPVT, VSSM, WISC, and SBIC-LM were administered.

Rule 3: A participial phrase at the beginning of a sentence must refer to the grammatical subject.

Correct Example: Replying to questions on the Vineland Scale of Social Maturity, the mother said that the child was enuretic.

Incorrect Example: Administering the Vineland Scale of Social Maturity, the mother admitted that enuresis was still a problem.

Rule 4: Avoid fancy words.

Correct Example: The patient was tongue-tied.

Incorrect Example: The patient exhibited apparent partial paralysis of motor units of the superior sinistral fibers of the genioglossus resulting in insufficient lingual approximation of the palatoalveolar region. A condition of insufficient frenulum development was noted, producing not only sigmatic distortion but also obvious ankyloglossia.

Rule 5: Omit needless words. Make every word tell.

Correct Example: Whether . . . . Because . . . . The mother reported . . . .

Incorrect Example: The question as to whether . . . . Due to the fact that . . . . According to the history given by the mother . . . .

---

*The rules and examples were taken from:

Moore, M. (1969). Pathological writing. ASHA, 11, 535-538.
Pannbacker, M. (1975). Diagnostic report writing. Journal of Speech and Hearing Disorders, 40, 367-379.

Rule 6: Express coordinate ideas in similar form.

Correct Example: The patient sat alone at 6 months, crawled at 8 months, and walked at 12 months.

Incorrect Example: The patient sat alone at six months. At eight months crawling began. Walking was noted at twelve months.

Rule 7: Do not affect a breezy manner.

Correct Example: The patient cried when separated from his mother.

Incorrect Example: The evaluation got off with a bang with the child yelling his head off.

Rule 8: Do not overstate. When you overstate, the reader will be instantly on guard, and everything that has preceded your overstatement, as well as everything that follows it, will be suspect.

Correct Example: The father reported no tension in the home.

Incorrect Example: There is no tension in the home.

Rule 9: Avoid the use of qualifiers: rather, very, little, pretty.

Correct Example: The patient was attentive.

Incorrect Example: The patient was very attentive.

Rule 10: Put statements in positive form. Make definite assertions.

Correct Example: The child did not name the colors of red and blue blocks. He did separate the blocks by color and matched them to other red and blue objects in the room.

Incorrect Example: The child did not know his colors.

Rule 11: Do not inject opinion unless it is labeled.

Correct Example: Mrs. Smith said, "John was a late walker," or Impressions: John was a late walker, or John was reported to walk at 16 months.

Incorrect Example: John was a late walker.

APPENDIX E

NOTES ON INFANT ASSESSMENT

APPENDIX E

NOTES ON INFANT ASSESSMENT

The assessment of infants for the purpose of determining eligibility for special education services is a new area. Relatively little is known about the kinds of procedures that should be used. Knowledge is growing, however. Within this manual, several considerations and ideas about promising practices in the assessment of infants have been noted. These are highlighted in this section to facilitate the reader's review of them.

Guidelines for Testing Infants

Ulrey (1982) has made the following suggestions for testing infants:

- Administer interesting objects and/or non-language items first.
- Repeat failed items at a later time if possible (i.e., child should be retested).
- Introduce a new item before the old item is removed.
- Alternate easy items with more difficult items.
- Have the parent coax the child or present items as necessary.
- Do not push for a response if the child refuses to respond to an item or direction (children will let the examiner know when they are bored or do not know something; insisting on a response frustrates both child and examiner).
- Reassure the parent as a ceiling is reached.

Care must be exercised in selecting instruments for use with infants. The younger the child, the fewer the options for standardized tests available. Further, many of those tests that are available have poor reliabilities and weak predictive validity.

Assessment Team

Teams involved in the assessment of infants typically include a representative of the medical community. In addition, a public health nurse or social worker may be appropriate personnel to involve in home observations and the collection of interaction information. Each team member should have a good basic understanding of developmental standards and sequences.

Special attention must be given to the selection of individuals who will be involved in infant assessment. In addition to liking to work with infants and feeling comfortable doing so, examiners must have a special respect for the child's personal space. Because anxiety toward strangers is high in children 7-18 months old, initial interactions with the child should be from a distance, followed by a slow progression to direct interactions.

Parent/Family Involvement

Parents or caregivers should be considered to be part of the assessment team. They should remain with the infant during assessment.

Infants and toddlers should be observed with active parent or caregiver involvement in settings that are familiar to the child and appropriate for observations.

Observational data that are collected on parent-infant/toddler interactions must be viewed in the context of a comprehensive process of family involvement and intervention. Some observation systems described by Rosenberg, Robinson, and Beckman (1986) are useful to consider:

- Molar systems of rating scales help observers look at broad categories of behaviors such as directiveness. They describe the flow of an interaction, but give limited information about specific behaviors. An example of this kind of system is the Maternal Behavior Rating Scale (Mahoney, Powell, & Finger, 1986).

- Molecular systems of rating scales help observers record specific behaviors. Inter-rater reliability generally is higher with this approach. An example of this kind of system is the Social Interaction Assessment Intervention (McCollum & Slayton, 1985).

- Checklists and rating scales have been used in research, but many have been criticized for general use because of their limited cultural sensitivity. An example of a scale used to measure qualitative properties of the child's domestic environment is the HOME (Caldwell & Bradley, 1984). An example of a scale used to measure the quality of parenting provided to infants is the Parent Behavior Progression (PBP; Bromwich, 1978).

Key infant behaviors that might be targeted during observations include state, temperament, [illegible]actability, activity level, attention span, consolability, proximity, and reciprocity. Key caregiver behaviors that might be considered in observations include sensitivity, responsivity, physical contact, and reciprocity.

Developmental Standards

Individuals who assess infants should have a basic understanding of typical developmental standards and sequences. Typical standards for infants include early reflex activity, motor movement and sensory responses, social responsiveness, and precursors to language. Language functions that emerge during infancy include "protoimperatives" (e.g., point to indicate wants) and "protodeclaratives" (e.g., showing objects to adults).

Special considerations must be given when the subject of assessment is an infant who was born prematurely. Controversy in the field continues about the use of correction factors to adjust expectations for premature infants, or at least about the exact nature of the correction factor and how long it should be applied. Based on a merging of varying viewpoints, it is recommended that a week-for-week correction for prematurity be implemented during the first 12 months after birth, and that a correction for half of the prematurity be applied from 13 to 24 months. No correction would be applied after 24 months.